

THE 1923
KEM-LEC-MEK



ROBERT M. RIGHTS
ENGINEERING DRAWING DEPT.
NEWARK COLLEGE OF ENGINEERING
NEWARK, NEW JERSEY

G. H. BJORKLUND



THE 1923

KEM•LEC•MEK

THE ANNUAL
OF THE STUDENTS

College of Engineering

NEWARK
TECHNICAL SCHOOL



NEWARK, NEW JERSEY

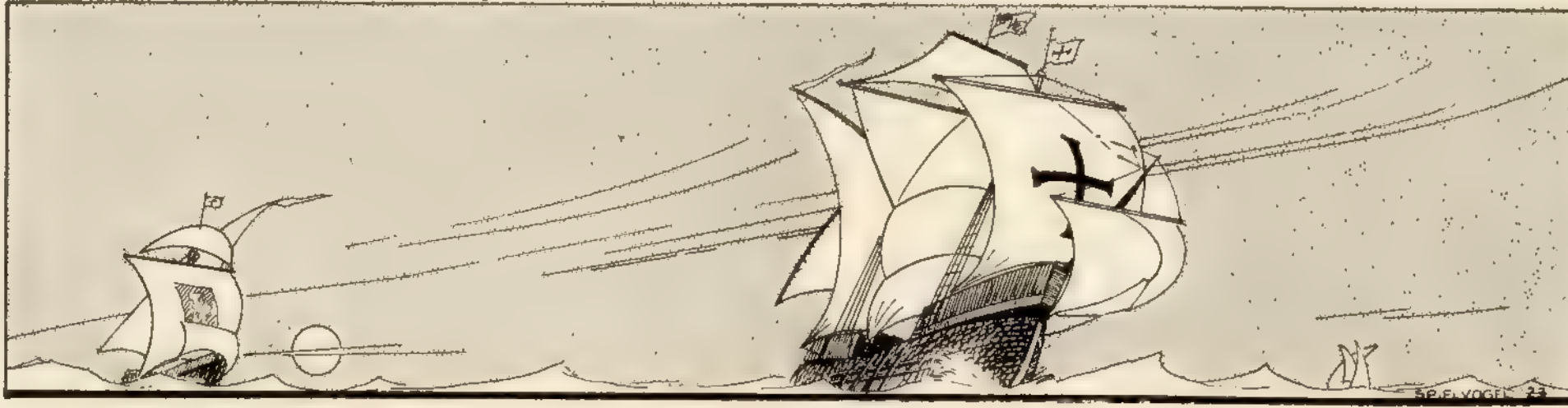
VOLUME ONE



CONTENTS



	PAGE
Foreword	7
Dean's Message	8
Dedication	9
Trustees	10
Dr. Colton's Message	11
Faculty Organization	12
Biographies	13
Alma Mater	19
Traditions	20
School Views	21
1923 Class History	23
1923 Class Charter	24
1924 Class History	25
Our Co-operators	27
Our Co-ed	33
School Views	34
The Class of 1925.....	35
The Freshman Class	38
Societies	41
Athletics	42
Glee Club and Orchestra	44
Cheers	45
Freshman Rules	45
Smokers	46
Cartoons	47
Keep Moving	48
Staff and Acknowledgments.....	49
Index	50
Advertising Section	51



Foreword

"The path of the pioneer is not strewn with roses."

THE purpose of this year book is two-fold. It attempts to explain, first, our co-operative system of education with the industries in this vicinity, and secondly, to record the desires, aims, and accomplishments of the students in their various activities, more especially the graduates, during the time it was their happy lot to attend the school.

Although Newark Technical School was founded in 1884, it was not until its College of Engineering was established in 1919, that the right to grant degrees was acquired. The Class of 1923 has the distinction of being the first graduating class to receive baccalaureate degrees from this college.

This issue of "Kem-Lec-Mek" is also the first of its kind in the college. The difficulties involved in its publication were considerable. A late start, a dearth of experienced men for the staff, a lack of estimates of receipts from advertising, a complete absence of past records on which to base our cost estimates, were only a few of our difficulties. It is our fond hope that this pioneer issue of "Kem-Lec-Mek" will be followed by bigger and better issues in the coming years. If it accomplishes this alone, our effort will not have been in vain.

THE DEAN'S MESSAGE

THE task in education which the College of Engineering of the Newark Technical School has set for itself is arduous but simple. To train men of character in the fundamentals of engineering is easily stated but difficult of attainment.

We believe that at the base of success lies a strong foundation of character. We believe that hard work and a sense of personal and professional honesty towards all work in hand lies at the bottom of all achievement and all success.

In engineering this must be supplemented by sound training in science and those of its applications which underlie the particular branch of engineering taught.

This training must be thorough and given under conditions as nearly as possible approximating those of real professional life.

This training must stress the ability to think clearly, to analyze accurately and to apply this thought and this analysis directly to the task in question efficiently and honestly.

Results such as these can be obtained only through a system of sound instruction in theory and system which maintains a direct contact with the phase of industry into which the engineer is to enter.

We think that these first graduates of ours are not only men trained in the theories of the basic sciences but that they know also the fundamental application of these theories to engineering work.

We know that these first graduates of ours are men who have proved their ability not only in the classroom, but men who have proved in the field of industry their ability to successfully meet and overcome the actual conditions to be met in industrial life, not as college boys but as college trained men.

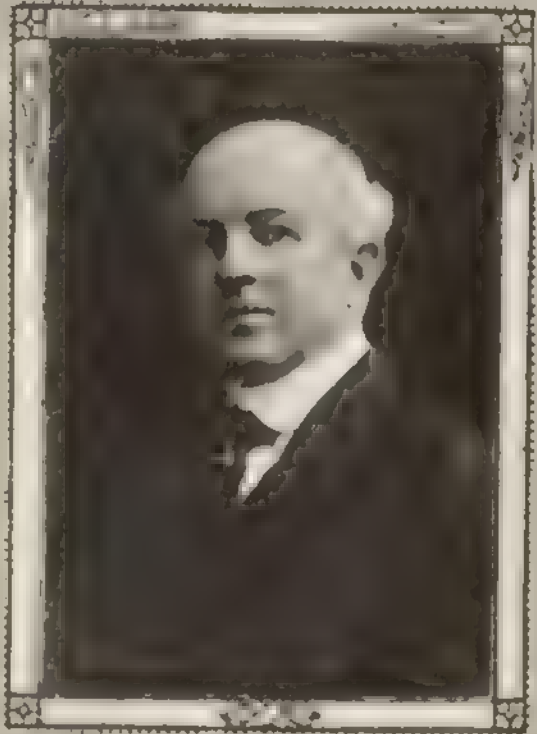
Allan R. Cullimore



TO OUR DEAN
ALLAN
REGINALD
CULLIMORE, S.B.

EDUCATOR, FRIEND,
AND MAN, DO WE
RESPECTFULLY DED
ICATE THIS VOLUME

• BOARD OF TRUSTEES •



HALSEY M. LARTER



HERBERT F. GLEASON



FREDERICK L. EBERHARDT



PETER CAMPBELL
VICE PRESIDENT



HON. GEORGE S. GILZEN,
GOVERNOR OF NEW JERSEY
PRESIDENT



HON. FREDK BREIDENBACH
MAYOR OF NEWARK



JOHN A. FURMAN



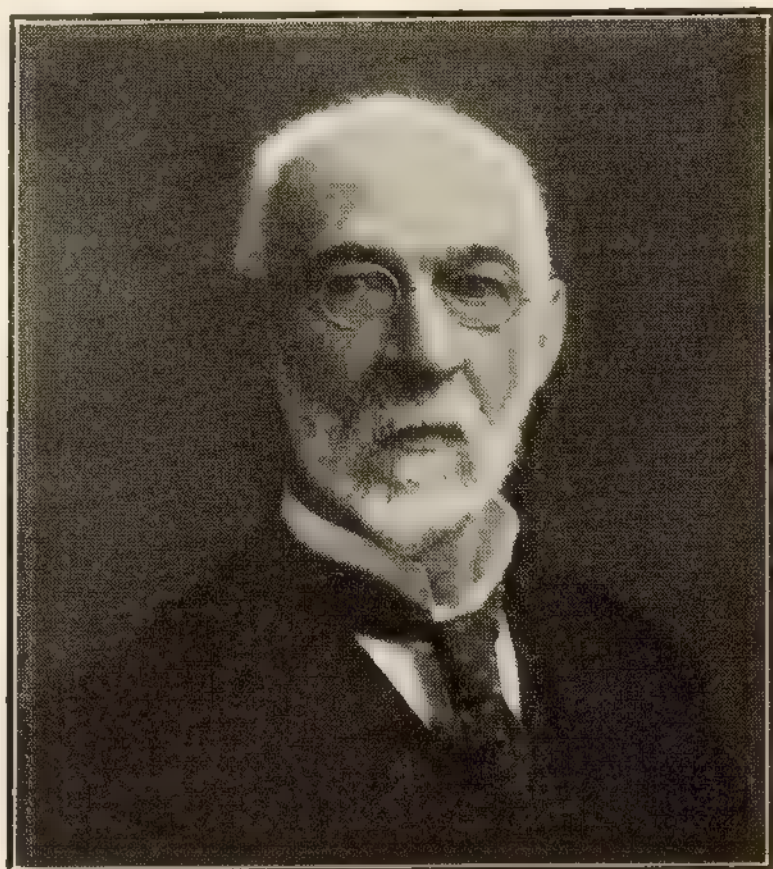
SAMUEL E. ROBERTSON, M.D.



WILLIAM L. MORGAN

A VISION OF THE NEWARK TECHNICAL SCHOOL

BY ONE WHO SAW IT



THE members of the Class of 1923 in the Engineering Courses of the Newark Technical School, are to be congratulated as belonging to the first class to graduate from those courses, and the Newark Technical School should receive the felicitations from those to whom it is dear as having achieved what was hoped for it from its origin. Every successful institution of learning has seen the day of small things, passed through days of depression and finally emerged into a strong and well developed educational institution. The inception of The Newark Technical School was a vision at long range, with but meagre

equipment to begin with and not much enthusiasm behind it from the outside, to create a school which should be of service to the industries of a manufacturing city, by educating those who were directly employed in those industries.

It was seen that the start had to be made with young men who had previously had but little education and to create a desire for higher education by turning out graduates who should show by their results that education of a professional character would be the means of higher achievement in the industrial world.

This was the dream of the first Director, which while approaching the realization was not reached until after the incumbent of the office had retired.

Two subjects included in all the Engineering Courses deserve special attention as equally important—English and Mathematics. The first because all reports submitted by engineers must be written in clear and concise language, so that those who read them may have a clear understanding of what is intended to be conveyed in the ideas which such reports mean to the persons who employ the engineer; mathematics because it is an exact science, and all engineering is founded on it, and no education is complete without it.

As now operated, there is no reason why the Newark Technical School should not realize the highest dream of one who founded it.

Charles A. Colton.

(Founder of Newark Technical School.)



Front row—William Netschert, V. T. Stewart, James C. Peet, Dean Allan R. Cullimore, Ernest C. Bradford, Harold N. Cummings, H. Graham DuBois.
Rear row—A. Perry Roberts, Walter Krausnick, Frank N. Entwisle, John M. Pierce, Bedross Koshkarian, James A. Bradley.

FACULTY ORGANIZATION

ALLAN R. CULLIMORE, S.B., *Dean of the Faculty*, DIRECTOR NEWARK TECHNICAL SCHOOL
CHARLES A. COLTON, E.M., ScD., DIRECTOR EMERITUS, NEWARK TECHNICAL SCHOOL

Department of Mechanical Engineering

Professor William Netschert, Jr., M. E.
Instructor A. Perry Roberts, M.E.
Instructor Thomas D. Kiley

Department of Electrical Engineering

Professor James C. Peet, E.E.
Associate Professor, Walter Krausnick, S.B.
Instructor Frank N. Entwisle, C.E.
Instructor Albert A. Nims, S.B.

Department of Chemical Engineering

Professor V. T. Stewart, Ph.B., S.B.
Instructor Frederick D. Crane, A.B., A.M., Ph.D.
Instructor James A. Bradley, A.B., A.M.

Department of Mathematics

Professor Harold N. Cummings, A.B., S.B.,
Instructor Bedross Koshkarian, A.B., A.M.

Department of English

Professor H. Graham Du Bois, A.B.

Department of Modern Languages

Professor Louis A. Roux, A.B.
Instructor John J. Arnao
Instructor Gustave Calman, B.A., M.A.

Supervisor of Co-operative Work

Ernest C. Bradford, S. B.

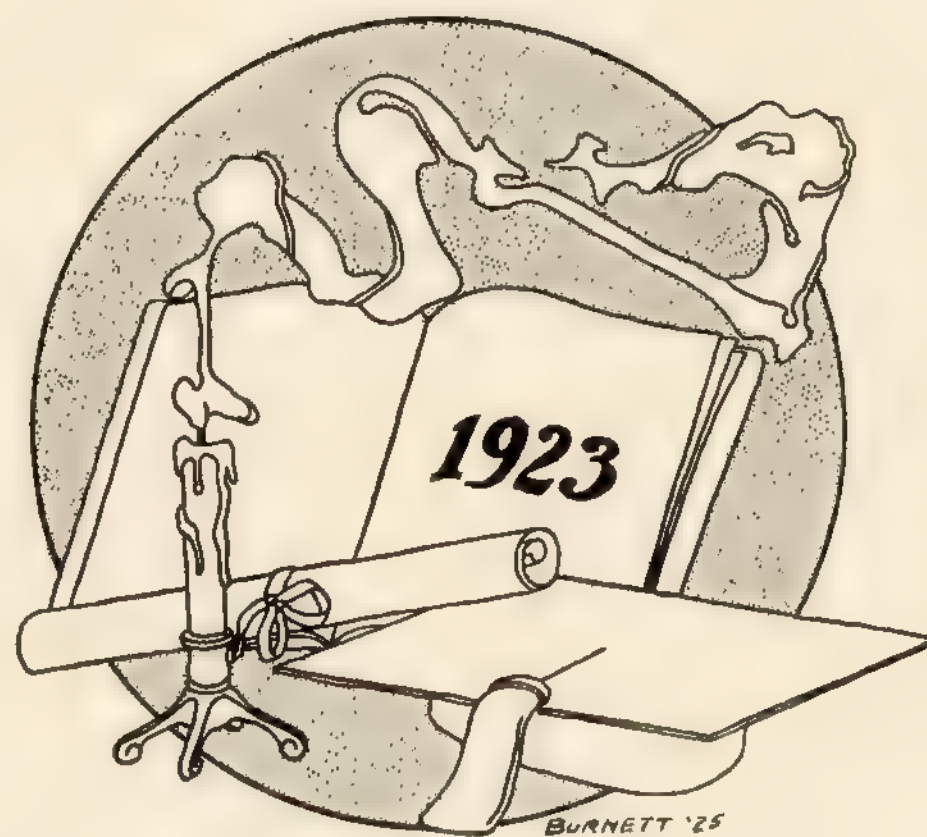
Instructor in Accounting

John M. Pierce

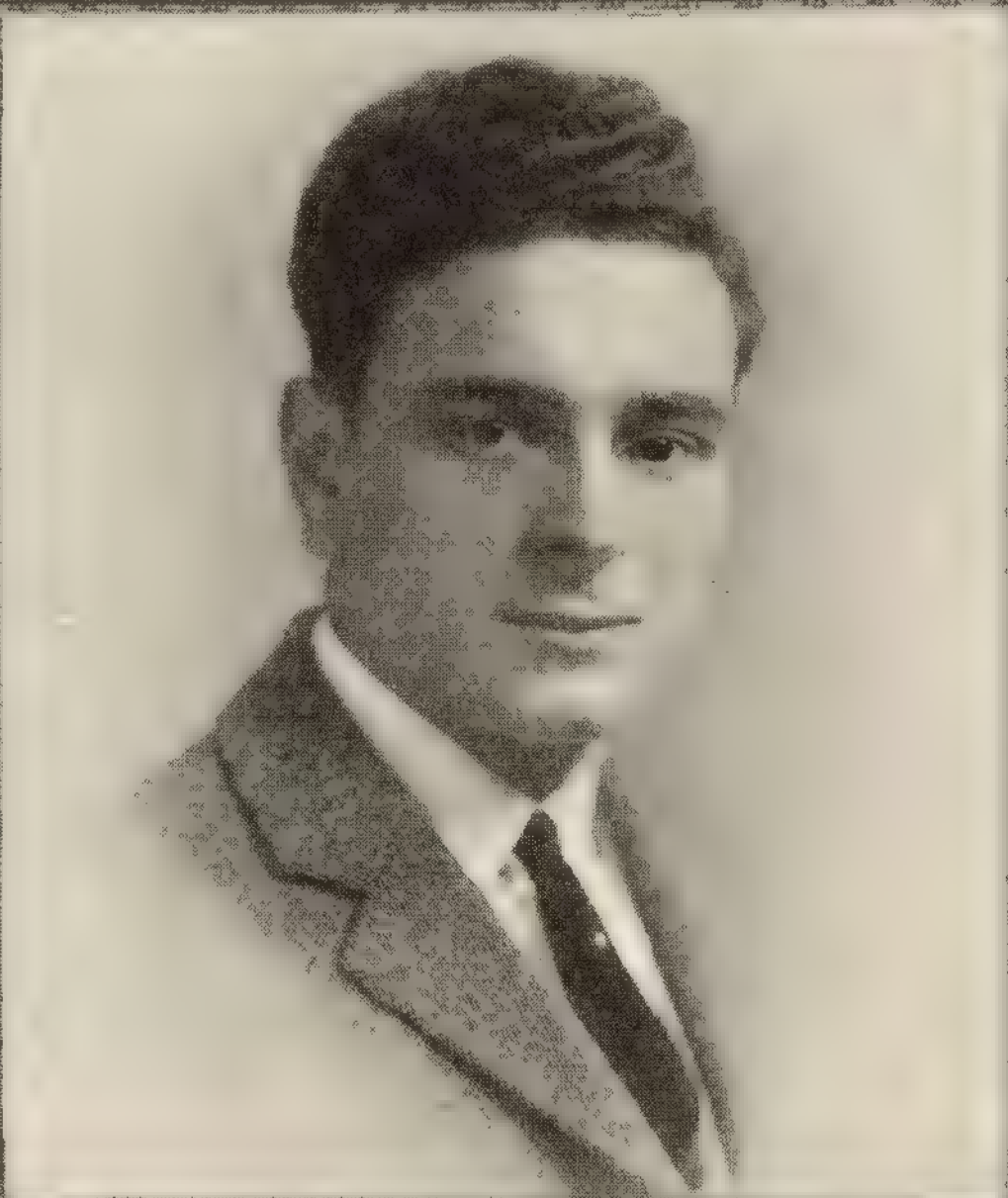
Athletic Coach

Ralph E. Guillow

THE GRADUATES



IN perusing the records of the graduates which follow, it will be noticed that each has already made a beginning in his professional career. These men are by no means simply college trained. Every one has had at least two years of actual work in an outside industry, where the work done has ranged from the stoking of boilers to that of being the production engineer of the plant. With every man the novelty of overalls and dirty hands has long worn off.



MILTON HOLMES

11 Mt. Airy Road, Bernardsville, N. J.

Course—Chemical Engineering.

Graduated Bernards High School, 1918.

Graduated Newark Technical School, 1920.

College of Engineering, N. T. S., 1920-1923.

Co-operating Concerns:

Carleton Ellis.

Charles Cooper.

Nairn Linoleum Co.

McNab & Harlin.

Honors:

Senior Class President.

President Athletic Association.

Circulation Manager *Kem-Lec-Mek*.

*"He travels the country
From mountain to sea;
A gypsy man,
He's sure to be."*

JOSEPH SPIELVOGEL

484 South 16th St., Newark, N. J.

Course—Mechanical Engineering.

Graduated Central High School, Newark, N. J., 1915.

Quality Man, Edison Lamp Works of G. E., 1915-1918.

Efficiency Engineer, Bloomfield Works of G. E., 1918.

U. S. Naval Academy, Annapolis, Md., 1918-1920.

Production Engineer, Mechanical Efficiency, Co., 1920-1922.

Junior Member A. S. M. E., 1921.

College of Engineering, N. T. S., 1921-1923.

Co-operating Concerns:

Mechanical Efficiency Co., 1921-1922.

Gould & Eberhardt, 1922-1923.

Author—*Illustrated Instructions*, Dec., 1922, *Management Eng.*

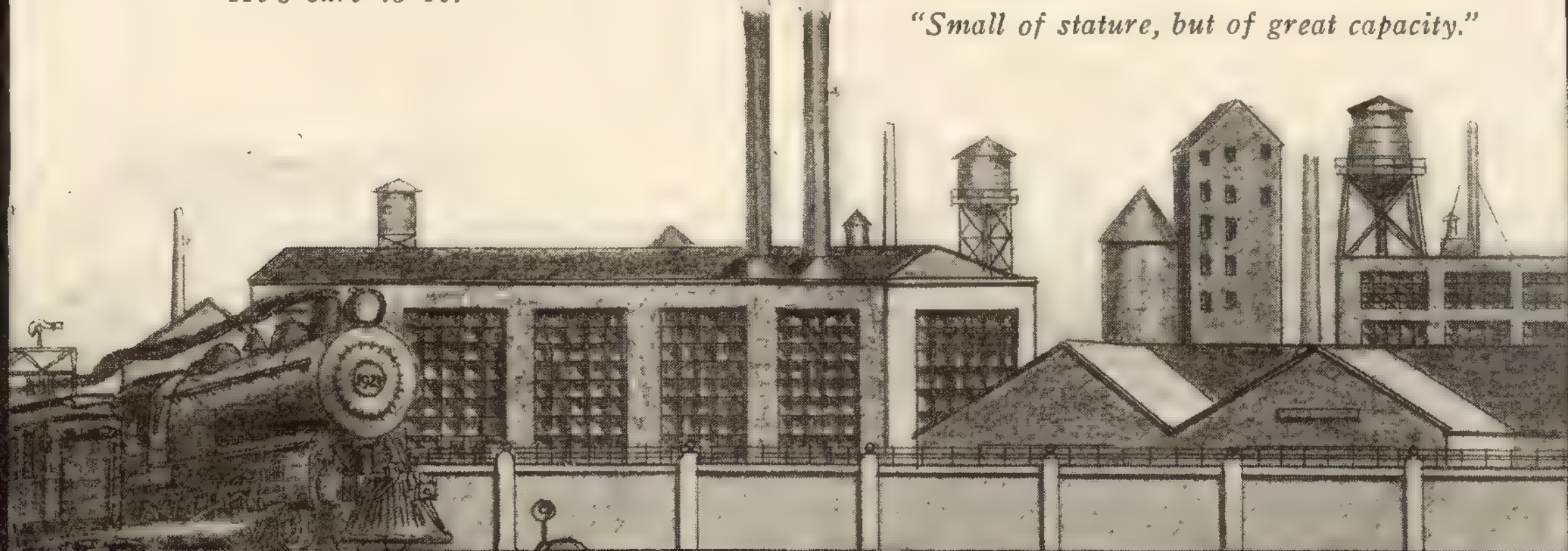
Honors:

Senior Class Vice-President.

Editor-in-Chief, *Kem-Lec-Mek*.

Chairman, First Annual Smoker Committee.

"Small of stature, but of great capacity."





GUSTAVE H. BJORKLUND
7 Spring St., Clifton, N. J.

Course—Mechanical Engineering.

Graduated Newark Technical School,
1919.

Draftsman, Greeff Engineering Co.,
Newark, 1919.

Draftsman, Edison Lamp Works of G.
E., Newark, 1920.

College of Engineering, N. T. S., 1919-
1923.

Co-operating Concerns:

Gould & Eberhardt, 1921-1923.

Honors:

Class Secretary and Treasurer, 1921,
1922, 1923.

"His modesty is not bashfulness."



EARL FENTON ADAMS
1048 Julia St., Elizabeth, N. J.

Course—Electrical Engineering.

Graduated Battin High School, 1918.

S. A. T. C. Columbia University, 1918.

Repair Dept., Diehl Mfg. Co., Elizabeth,
N. J., 1916.

College of Engineering, N. T. S., 1919-
1923.

Instrument Inspector, Weston Electrical
Instrument Co., 1920.

Co-operating Concern:

Weston Electrical Instrument Co.,
1921-1923.

Honors:

Student Member A. I. E. E.

Graduation Dance Committee.

*"He is so shy,
We don't know why,
Lest Elizabeth
Keeps him occupied."*





WILLIAM FRANCIS CRUTCHLOW
360 Madison Ave., Paterson, N. J.

Course—Electrical Engineering.
Paterson High School, 1916-1917.
Newark Technical School, 1917-1919.
Maintenance and Construction Dept.,
Public Service Electric Co., 1919-1922.
Instrument Inspector, Weston Electrical
Instrument Co., 1920.
College of Engineering, N. T. S., 1919-
1923.

Co-operating Concern:
Crocker-Wheeler Co. 1921-1923.

Honors:
Associate Editor, *Kem-Lec-Mek*.
Charter Committee.
Class Day Committee.
Class Rep. A. A. Council.
Student Member A. I. E. E.

*"He has something more than nonsense
lying underneath his head."*

DONALD KEITH CRAIG
50 Olcott Ave., Bernardsville, N. J.

Course—Mechanical Engineering.
Graduate Bernards High School 1917.
N. J. Military Camp, Princeton, 1917.
Sibley College, Cornell Univ., 1917-1919.
S. A. T. C. Cornell University, 1919.
Sprague Electric Works of the G. E.
1919-1920.

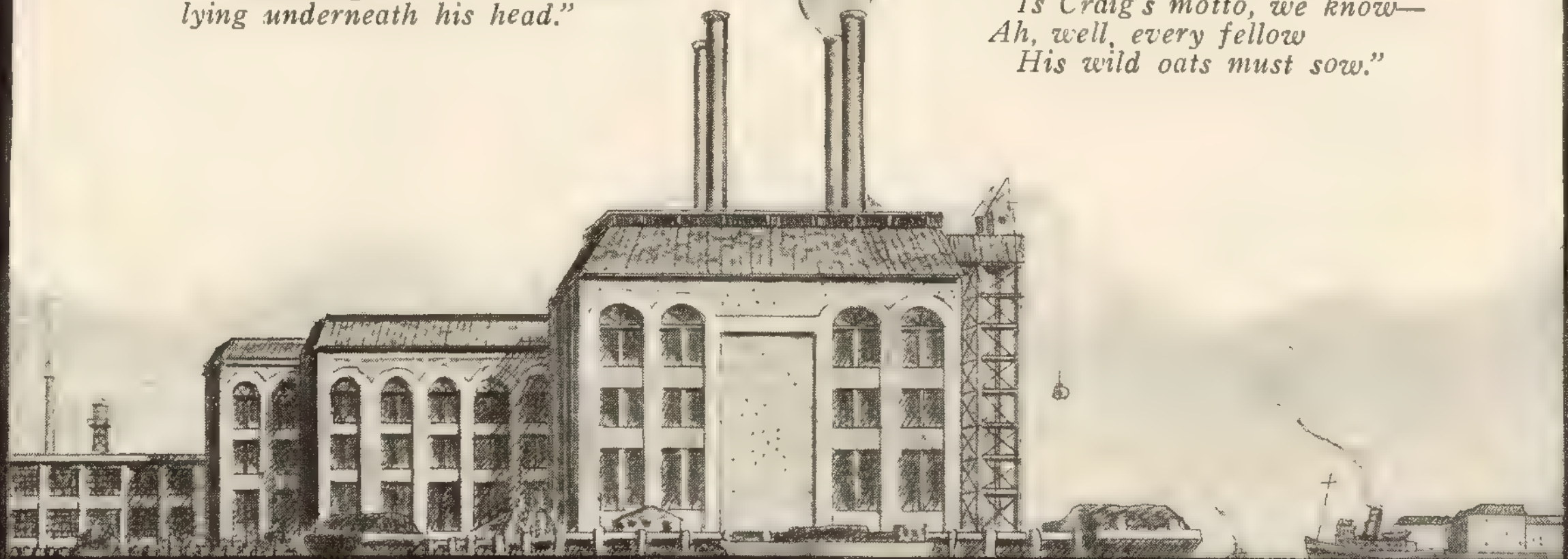
Precision Instrument Co., 1920.
College of Engineering, N. T. S., 1921-
1923.

Phi Gamma Delta Fraternity.

Co-operating Concern:
Weston Electrical Inst. Co., 1921-1923.

Honors:
Junior Class President.
Chairman Mechanical Eng. Society.
Chairman Seal Committee.
Chairman Charter Committee.
Chairman Commencement Committee.
Class Rep. A. A. Student Executive
Council.

*"Wine, women, and song,
Is Craig's motto, we know—
Ah, well, every fellow
His wild oats must sow."*



SPIDYOGEL '23



FRANK LESLIE JACOBUS
37 Durrell St., Verona, N. J.

Course—Mechanical Engineering.
S. A. T. C. of the U. S. Army, 1918.
Graduated Pratt Institute, 1919.
Experimental Engineer Hyatt Roller
Bearings Co., 1919-1920.
Assistant to Manager, Silk Textile Ma-
chinery Co., 1920-1921.
College of Engineering, N. T. S., 1921-
1923.
Co-operating Concern:
Gould & Eberhardt, 1921-1923.
Honors:
Class Day Committee.

*"Wine, women and song? No.
Flivver, fish and hunt,
Then fish and hunt some more.
Now let me think, let me think."*

FREDERICK CAMPBELL FRASER
11 Oak Lane, Mountain Lakes, N. J.

Course—Chemical Engineering.
Passaic High, 1917-1918.
U. S. Marine Corps, 1918-1919.
College of Engineering, N. T. S., 1919-
1923.
Linsdale Bleach Dye & Print Works,
1922.
Co-operating Concerns:
Charles Cooper Co., 1921-1922.
McNab & Harlin, 1922-1923.
Honors:
Graduation Dance Committee.

*"And when a lady's in the case,
You know all other things give place."*





ELWYN WALLER

51 Ford Ave., Morristown, N. J.

Course—Electrical Engineering.
Graduated Sanford School, Redding
Ridge, Conn., 1917.
S. A. T. C. Harvard University, 1918.
Newark Technical School, 1918-1919.
Crocker-Wheeler Co., 1919.
College of Engineering, N. T. S., 1919-
1923.

Co-operating Concern:
Crocker-Wheeler Co., 1921-1923.

Honors:
Charter Committee.
Student Member A. I. E. E.

*"He holds a handful of truth, but only
opens his little finger."*

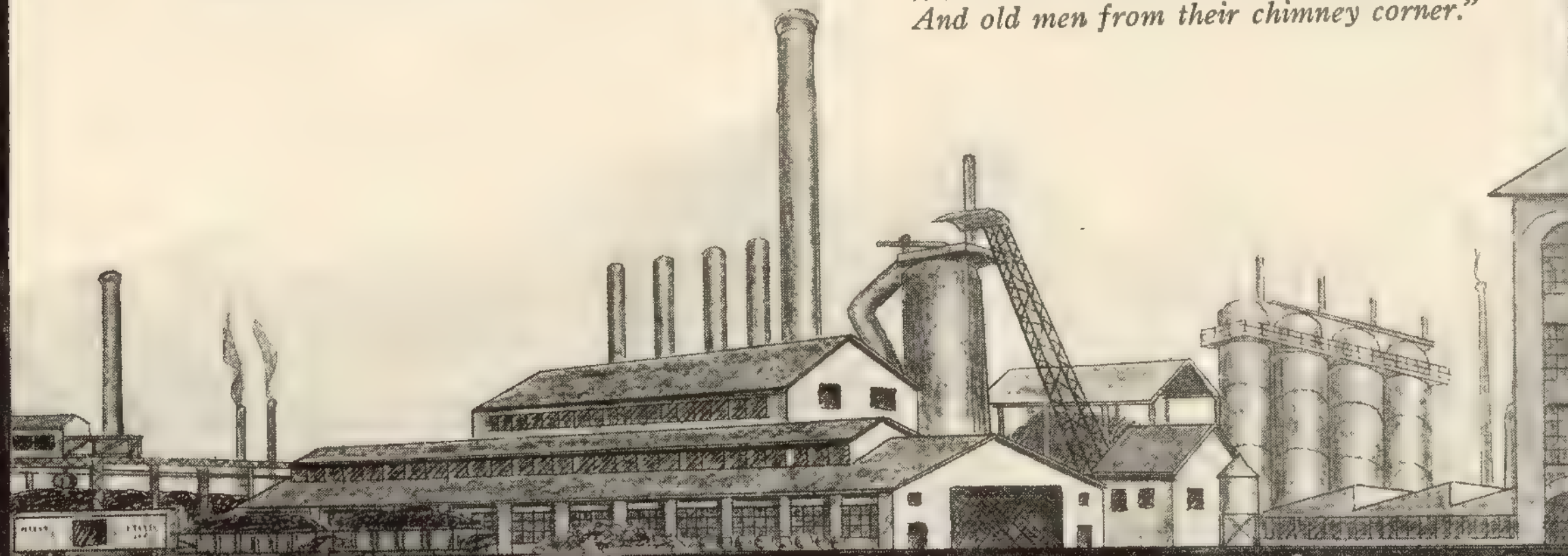
JOSEPH PETER WLUDYKA
134 Belmont Ave., Newark, N. J.

Course—Chemical Engineering.
Graduate Barringer High School, 1918.
Submarine Listener, U. S. N., 1918-1919.
Asst. Metallurgist, U. S. Metals Refin-
ing Co., 1919.
Asst. Plant Operating Engineer, Interna-
tional Coal Tar Products Corp., 1920.
Member N. J. Chemical Society, 1919.
College of Engineering, N. T. S., 1919-
1923.
Student Member, American Institute of
Chemistry.

Co-operating Concern:
Nairn Linoleum Co. 1921-1923.

Honors:
Business Manager, *Kem-Lec-Mek*.
Junior Class Vice-President.
Chairman Class Day Committee.

*"He cometh unto you with a tale
Which holdeth children from play,
And old men from their chimney corner."*



SPIELVOGEL 25



ALMA MATER

(Tune: "Grandfather's Clock.")

Words by J. P. Wludyka, '23, and M. Kosches, '24.

It was there on the hill, where our college was built,
And it stood there since 1884,
For her colors are blue like the skies high above,
And the gold like the radiant sun.
Alma Mater we love thee and the ground whereon you stand,
You are always our glory and pride,
And the C. of E. shall always be the pride of eternity.

TRADITIONS

"A deed takes effect only from the tradition or delivery."—Blackstone

THE traditions of our school are, in the main, still in the formative stage, and those already made must be proved by the test of time. The aim in view is to mold the characters of those who come here in a distinctly Newark Tech pattern, and not to simply transplant customs from other colleges, probably suited for their purposes and ideals, but not for ours.

Traditions are as the trees; they must begin as a small seed, grow as a sapling, and after some strength-giving years round out into the noble and respected examples which we hope to see them become. Therefore, at present, we, who are now enjoying the environment and teachings of our institution, can but plant the seed from which, through hope and caretaking, we may eventually have traditions as noble and respected as those of the older colleges.

During the first two years of the college, because of the small classes, little was done or could be done, to sow the seed for the traditions of our school. It was not until the third year that conditions changed. In the fall of 1921, the Class of 1925 presented itself for admission to the college. The sophomores of that day, did not find themselves equal to the task of subduing the incoming class, probably because of the splendid organization, physique, and unity of the freshmen. The first annual Freshman-Sophomore football game was played that year, and the disastrous defeat of the latter shattered all their hopes of exercising any authority over the former. In the evening of the same day the first annual smoker was given by the Class of 1923 to the Freshmen at the Automobile Club. This was the first social gathering of the entire body of students and faculty, and gave the first indication that a distinct college spirit had already germinated.

The following year, 1922, the incoming Freshmen Class of 1926, met what was the first organized attempt to establish and carry out a set of rules by which they were to abide. This year the Sophomore Class defeated the Freshmen in a very close and spirited football game, and consequently earned the privilege of "laying down the law" to them, and enforcing it for the first time. The annual smoker was again a success.

The first social class affair to receive the unanimous support of the school was held this winter by the Class of 1925, at The Washington. This was closely followed by another very successful and well-patronized dance given by the Class of 1926. These affairs have constantly improved, and it is our hope that they will be followed by others, bigger and better.

On the presentation of our first year book, the school rounds out its fourth successful year. We are confident that we have sown the seed in good soil, and that we can, and expect to see in later years the fully matured tree of traditions of which any institution could justly be proud.



The Library



The Laboratory Building



CHEMICAL LABORATORY

We find the sparkling jewel in the mine,
Or make perfumed soap from stockyard fat,
Remove the mulish content from the wine,
And take the kick from Omar's Rubaiyat.



ELECTRICAL LABORATORY

We cage and beard the devil in his lair,
Or fish for flitting phantoms of the air,
And formulate for power on reports the eleventh hour,
Till our finer feelings sour in despair.

1923 CLASS HISTORY

In September, 1919, the College of Engineering was formally opened in Newark Technical School. The forty students matriculating formed the first class under the new co-operative system of education in



J. Spielvogel
Vice-Pres.

M. Holmes
Pres.

G. H. Bjorklund
Sec. & Treas.

this section of the country. We were a conglomerate group, but very enthusiastic, and had great expectations and confidence in making history for the new co-operative plan.

The class soon organized, and at our first few meetings a great many social activities were planned, such as theatre parties, dances, smokers, and various clubs, none of which materialized.

Our Sophomore year was marred by dissensions in our ranks, which resulted in a class split, seriously impeding, in fact making impossible, any successful class activities.

It was not until our Junior year that the class was reunited, but our numbers had diminished from forty to thirteen. The class gave the incoming Freshman class a smoker on the evening of the Freshman-

Sophomore football game. This was the first unanimously supported social affair of the class, and was very successful, setting a precedent which bids fair to be a permanent event.

In our Senior year, we began early to make up for lost time, and during the first week not only organized, but launched a large number of projects, all of which were carried to a successful conclusion. Among these were the Class Charter, a College Seal, a Year Book, and Class Day Picnic and celebrations. Arrangements were also made



H. N. Cummings, Class Advisor

for graduation exercises with the co-operation of the night school students. Our college career ended with a Commencement Dance at the Washington on June 15th, 1923.

1923 Class Charter

WE, the first class of the College of Engineering of the Newark Technical School have grown while in this Institution from boyhood to manhood.

Our experiences during the past four years have taught us certain definite facts which are embodied in this charter and set down by us for the help and guidance of those who come after.

Give respect to your Director and faculty; co-operate with them in every way. Professors are not taskmasters, but labor for your success.

Social and athletic activities are a necessary part of the school program but the demands of your profession should come first.

As a class remember that in union there is strength. A successful class organization must have the co-operation of all its members.

As the highest good give your loyalty to your fellows, above your fellows to your class, above your class to your school, and finally with real devotion, to your professional aims; follow your ideals unswervingly whatever the cost.

May 14th, 1923

Milton Holmes	Joseph P. Wludyka
Joseph Spielvogel	Elwyn Waller
STH Bjorklund	F. Leslie Jacobus
D. K. Craig	Wm. Cautchlaw
Fredl Fraser	Earl F. Adams



Front row—C. Boorujy, L. Mosch, C. Mannheim, R. Fogel, I. Bergman, J. Nile.
Top row—S. Reigenstreich, C. S. Davis, W. Perrine, C. Schultz, L. J. Patterson, R. Widdop, A. L. Vanderlip.

JUNIOR CLASS HISTORY

TOURISTS in the mountainous regions are often fascinated by the feats of daring performed by the natives. Up, up, up—over rocks that seem impassable to the beholder, they climb with agility and ease, to the highest point, clinging to the smallest edge of rock, and finding a foothold upon ledges that are scarcely perceptible.

It does not seem at all remarkable to them. They have been schooled to such efforts from their earliest years, and it has become a second nature to them. Sometimes their hands may be torn in grasping some sharp bit of rock, or their feet may be cut by contact with its sharp edge, but they do not heed it. Their eyes are on the goal ahead, and they pay little attention to the rocks as they pass. They do not even question whether or not they can surmount the difficulties in their way; they only know they must surmount them, and nothing remains to be said.

In our daily lives we, too, are climbing toward that longed for goal which the Seniors have attained. The obstacles in our path often look as fierce and impassable as the rocks in mountain gorges, but since we have been schooled for the climb, we know our desired goal shall be attained.

There often comes a time in the lives of most of us when we feel that it is almost useless to struggle against the apparently insurmountable difficulties ahead, and are tempted to give up in despair. This is one of the greatest and saddest mistakes of life. If life is worth

living at all, success is worth climbing for, even when the climbing is over the most rugged rocks that leave the hands and feet mangled and bleeding, but—victorious.

Still, laying aside all thoughts of reward at the end, it is well worth while to climb the rocks in our pathway for the sake of the character development it brings us. The influence upon our lives of every victory cannot be overestimated, and what we acquire in self-control,



R. F. Fogel, Pres. ; C. P. Mannheim, Vice-Pres. ; I. Bergman, Treas.

in persistence, in earnestness, and in all those sterling qualities that make the true man, is worth every effort, it matters not how difficult or how prolonged it may be.

Our climbing so far has not been easy, and numerous impediments that we have encountered in the ascent have been surmounted with difficulty. Well-informed guides have pointed out the height so enthusiastically that it has been only a pleasure to seek them. The



V. T. Stewart, Class Advisor

year ahead of us is strewn with obstacles, but we have been schooled for the ascent, like the mountaineer in his climb, and we need not fear to step boldly forward, determined to scale the heights, until we stand at last on the mountain peak of success.

We can but hope that we shall succeed in covering the space of the coming year as successfully as have the Seniors.

OUR CO-OPERATORS

"HELLO, Mr. Bradford? There is a gentleman from the Blank Company who wishes to see you about the co-operative plan."

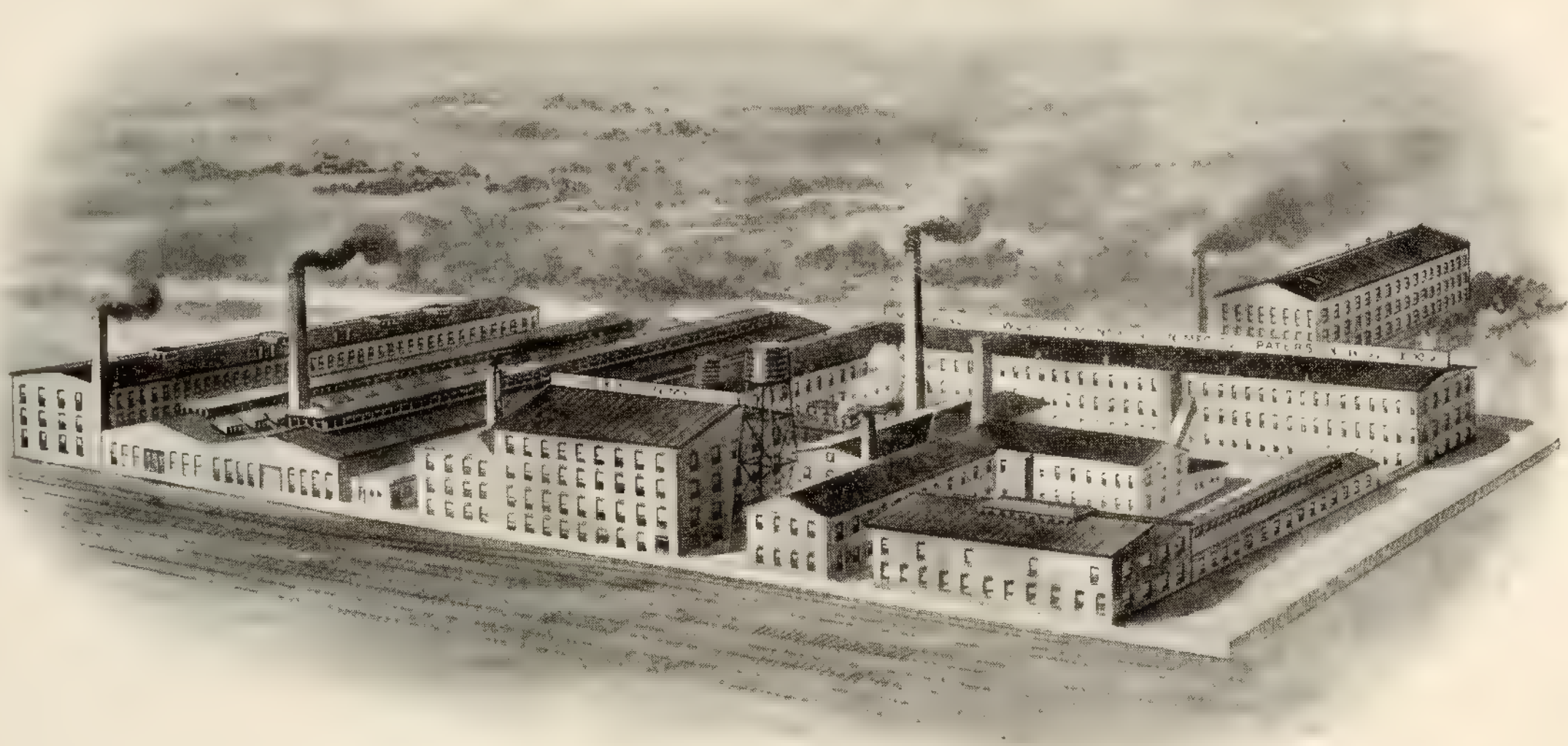
"Thank you, I'll be right there."

As the telephone clicked, the gray haired prosperous looking gentleman was asked to take a seat by the pretty switchboard operator who had just made the call for him.

"I am Mr. Bradford, in charge of the co-operative work," was the manner in which the visitor was greeted when the man he came to see entered the office.

"And I, Mr. Dunn, president of the Blank Company."

"We have found it very difficult to get the right type of men to fill our executive posi-



McNab & Harlin Mfg. Co., Paterson, N. J.

tions and in talking over the matter, my manager who is a Newark Technical School graduate, told me about your plan of training executives—to order, as it were. What are the details of the scheme?"

"Let's adjourn to my office and we can talk over the matter."

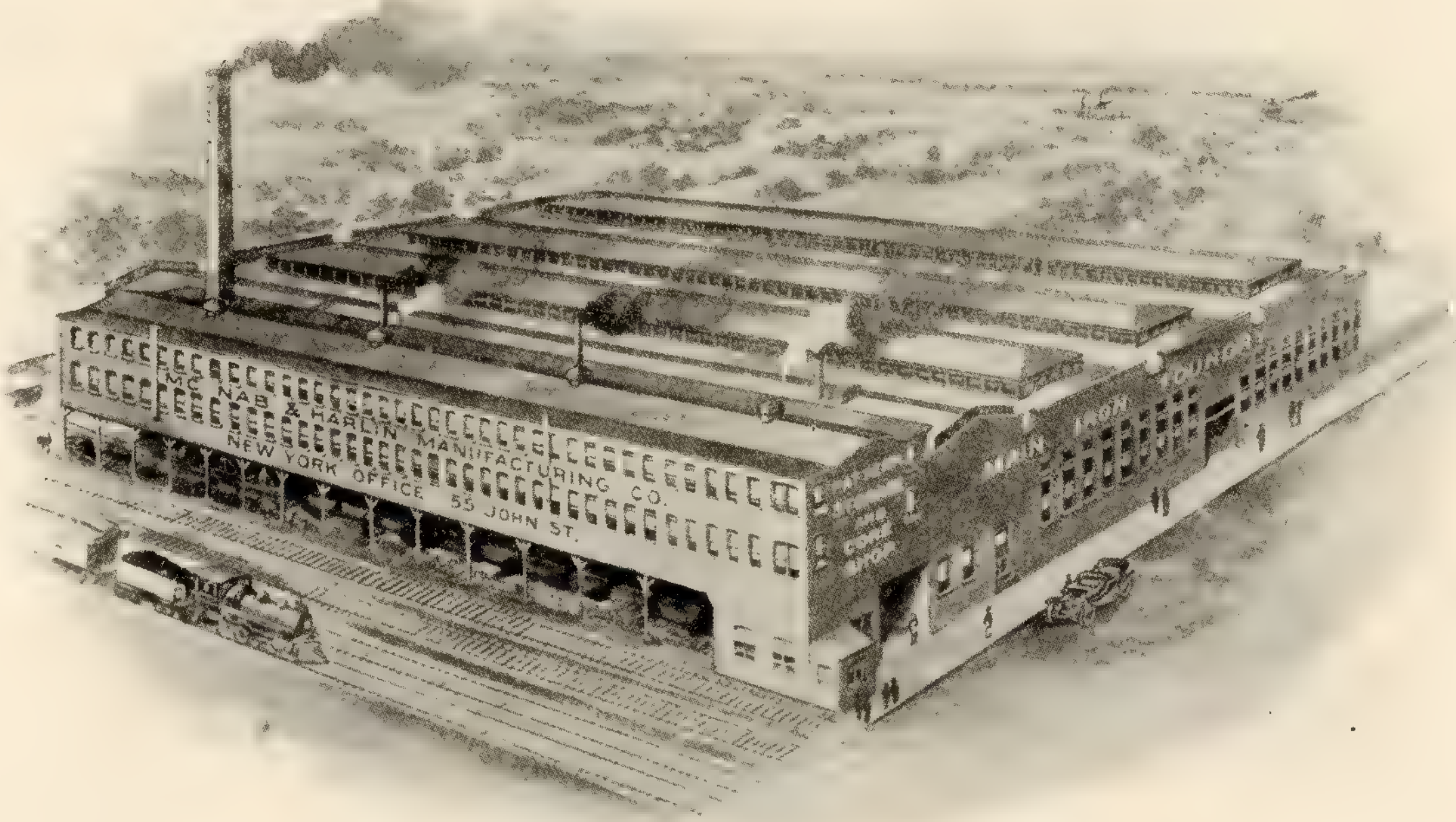
"Undoubtedly you know, Mr. Dunn, that for years educators and executives have realized the uselessness of college trained men directly after graduation."

"Absolutely! That's a well known fact."

"No student can become an engineer unless he is first a man; to be a man, he must primarily be honest and responsible. In addition he must not fear hard work and must possess both the intellectual and the moral stamina to work men, work for men, and work with men."

"That's exactly the type of chap I'm after."

"Our co-operative course is designed to develop boys into men, engineers. The first two years of our student's time is spent in college, receiving a fundamentally sound technical training. The last two years are divided into two-week periods, alternate periods being spent with some co-operating concern where the students work their way in progressive



Foundry of McNab & Harlin, Paterson, N. J.

steps through the plant. At present we have about twenty fellows alternating in this manner with various nearby manufacturers.

"What companies co-operate with you at present?"

"I was just about to start on my weekly tour as you came in. Why not come along and actually see how the plan works?"

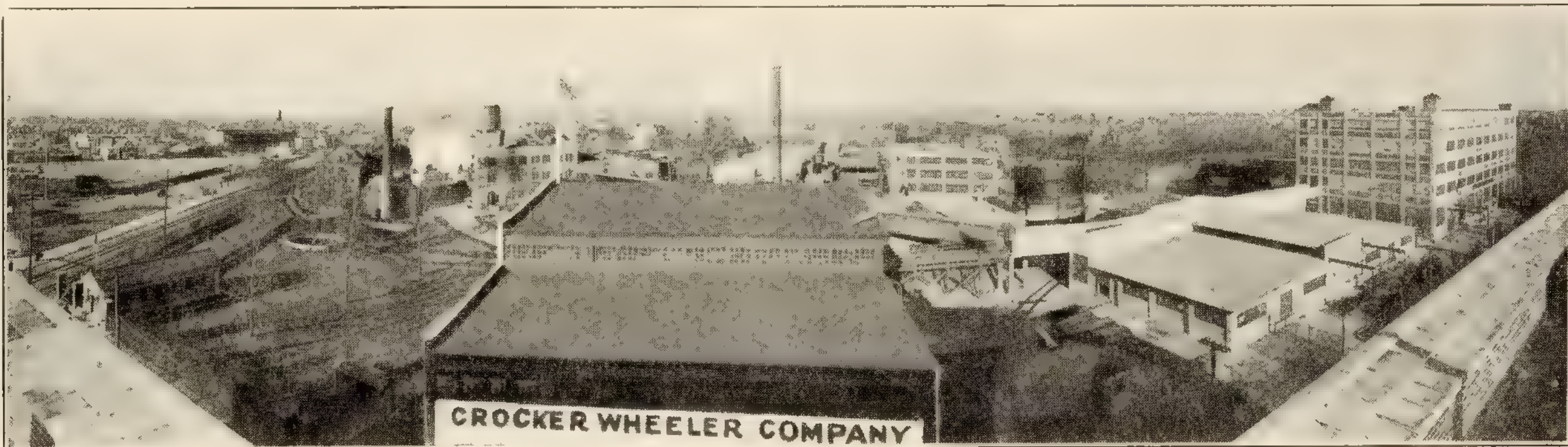
"I should be very glad to take advantage of the opportunity."

The visitor and Mr. Bradford, after a pleasant drive, eventually arrive at the Mc Nab & Harlin foundry at Paterson, where the latter points out two of the students; Holmes, almost dressed in an old pair of overalls, working a moulding machine, and Davis shoveling sand like a veteran grave digger.

"How in the world do you ever get college boys to submit to this?"

"These men, not boys, are to be commended on their sticking powers. For more than six months they've been doing this same type of work."

"But what good is it doing them? What can they learn laboring in this manner?"



Crocker-Wheeler Company, Ampere, N. J.

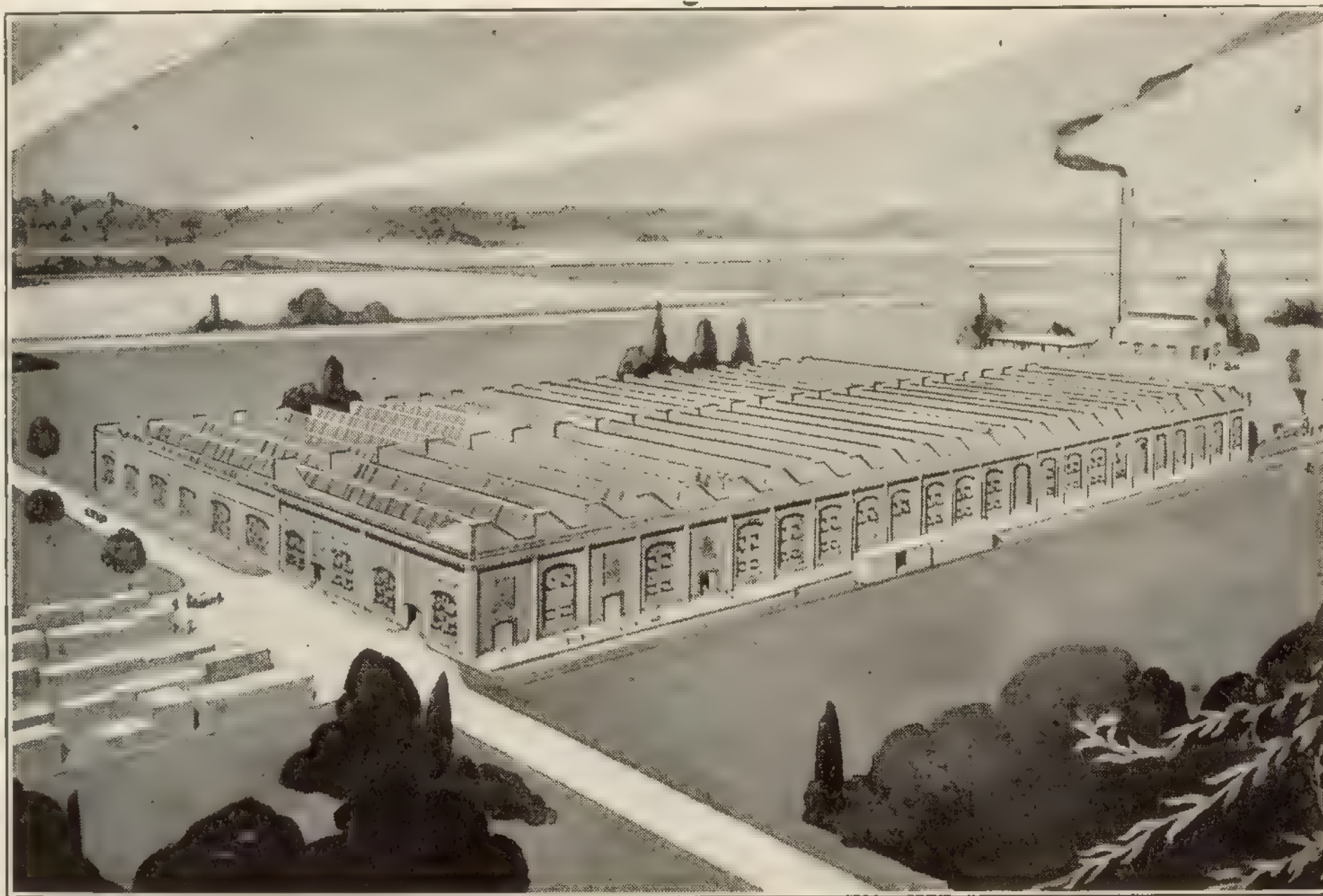
"Evidently they are not extending their knowledge of technical chemistry. We believe, however, that hard work is the true basis of success and culture."

The first glimpse into the co-operative scheme had greatly surprised our Mr. Dunn, pleasantly to say the least, and one could see a half smile light his face as he stepped into the machine after Mr. Bradford.

"So here's another man disregarding the old clean hands and collar decree," was his comment when, on arriving at the Crocker-Wheeler factory, they were met by a combination of grease, oil, and Vanderlip.

"I hope you haven't been led to believe that all our men are engaged in this type of work. Mr. Waller, our Senior representative at this plant, has been 'through the mill,' and is at present working in the office attaining a knowledge of the company's business methods and policies."

"It is certainly wonderful to note how much interest the industries show in your work," said Mr. Dunn, as the pair made their way toward Irvington, and the Gould & Eberhardt Company.



Gould & Eberhardt, Irvington, N. J.

"The concern we are about to visit takes care of most of our mechanical engineering students, two seniors, Jacobus and Bjorklund, have worked their way through the various production departments, and are now engaged in doing actual engineering work. This firm is one of the most progressive in the country, and our students are given every opportunity to learn."

Confirming Mr. Bradford's statement, on arriving at the plant they find Bjorklund poring over a detail "layout" of the factory—he was attempting to determine the most economical method of transporting coal from the point of reception to the boilers.

"This most certainly is an engineering problem in every sense of the word."

"Our next stop is the Weston Instrument Company. This is a model co-operator. Adams and Craig, the first an electrical, the other a mechanical student, were each given a program of work which fitted their individual needs. These programs have been very closely adhered to with apparently excellent results."

"I am afraid I'll have to decline the offer to make any more visits, Mr. Bradford, as I



Weston Electrical Instrument Co., Newark, N. J.

have another appointment. If you will, however, I should be glad to have you tell me more about your operations on the way to the tube station."

"In addition to the plants you've heard of, we are also co-operating with the Seaboard By-products Company, Bloomfield Works of the General Electric Company, Edison Portland Cement Company, and the Nairn Linoleum Company. The latter is our main co-opera-



American Transformer Company, Newark, N. J.



Bloomfield Works of the General Electric Company

tor in the chemical division. The men placed here are all engaged in very responsible work. While working under these conditions, they have a chance to find themselves, since they come in touch with various types of problems and are able to test their imagination and ability."

"That idea, like all the others you have mentioned, is a good one. The thing that strikes me, however, is this. When other college men graduate, they get their practical training by working in some industry for a couple of years. Why, then, do you sacrifice what amounts to one year of the theoretical instruction. I understand, that the majority of educators are advocating six years of solid theory in place of the present four."

"Mr Dunn, we do not pretend to produce research men. Instead, it is our aim to turn out production engineers who have the ability to apply theory and practice, and to carry to a successful conclusion whatever they undertake. When I graduated, I had an idea that I could and would have to design buildings, bridges, etc. Imagine my surprise, when on my first job, all I was expected to do was to follow a standard procedure which had been 'figured out' years before."

"I labored under the same impression before I worked under actual conditions."

"Then you can readily realize how much better off our men are than we were. They



Nairn Linoleum Co., Kearny, N. J.

know, and can see an application for their theory while they are acquiring it. All our courses are very intensive and, as I mentioned before, fundamental in nature."

"Yes, I noticed that in looking over your official bulletin."

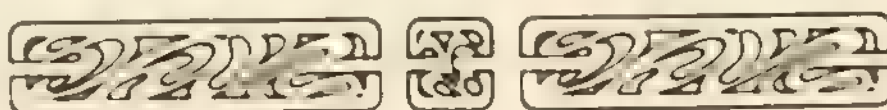
The machine bearing the two had to check its speed, now that they approached the downtown section of the city, and before long the tube station was visible.

"To conclude, Mr. Dunn, I believe you can see that besides the business contacts our students make, many of them have already worked their way into responsible positions by the time they graduate. They know the factory, the principles, and ideals of their employers; and the employers, together with their principal subordinates, know the man. Hence the results are mutually beneficial. Employers are beginning to appreciate the fine type of executives we are turning out, and we are already being flooded with requests for men. Well, here we are at the station."



Seaboard By-Products & Coke Company, Jersey City, N. J.

Mr. Dunn reached over to open the door of the car. "On the whole, Mr. Bradford, I've been very much impressed with the plan. I'm very sorry I couldn't spare the time to visit the other plants, but I can assure you that I've seen enough to make me very enthusiastic. I intend to take the matter up with my board of directors at the very next meeting, and feel certain that, if you can arrange to let us have some of your students, we will be classed among your co-operators by this time next year. I wish to thank you for your courtesies this afternoon. Good day."





OUR CO-ED

The other problems, we, with rule and line
Up and down with logic clear define;
This problem to the fair co-ed resign—
Beauty and brains together to combine.

P. F. MACDONALD.



The Machine Shop



The Electrical Laboratory



Top row, left to right—F. J. Lynch, S. S. Mort, F. Damitz, E. L. Burnett, H. Ulanetsky, P. J. MacDonald, F. Eitel.
 Middle row, left to right—C. M. Beyer, A. G. Davenport, W. D. Vander Schaaf, H. Hosking, C. Bauer, L. D. Smith,
 E. Phelps, F. F. Reed.
 Bottom row, left to right—Prof. J. C. Peet, F. Jillard, P. G. Cobb, R. J. Morgenroth, S. P. Dodman (Miss), F. Borman,
 D. Rosamilia, D. S. Collard.

THE SOPHOMORE CLASS

THIS class entered the sacred halls of the college in the fall of 1921, and shortly afterward organized with Frank Borman as President, Fred Eitel, Vice-President, and Miss Shirley Dodman as Secretary. During the first year, Walter Aurnhammer served as Treasurer; this year Robert Morganroth fills that office, and Phillip Cobb is Vice-President.

The first public appearance of the class was on the football field, where we defeated the Sophomores by a score—33-0 in the first annual Freshman-Sophomore football game. This was the only athletic achievement of the class during the first year. A very successful dance was given at the college in the spring of 1922.

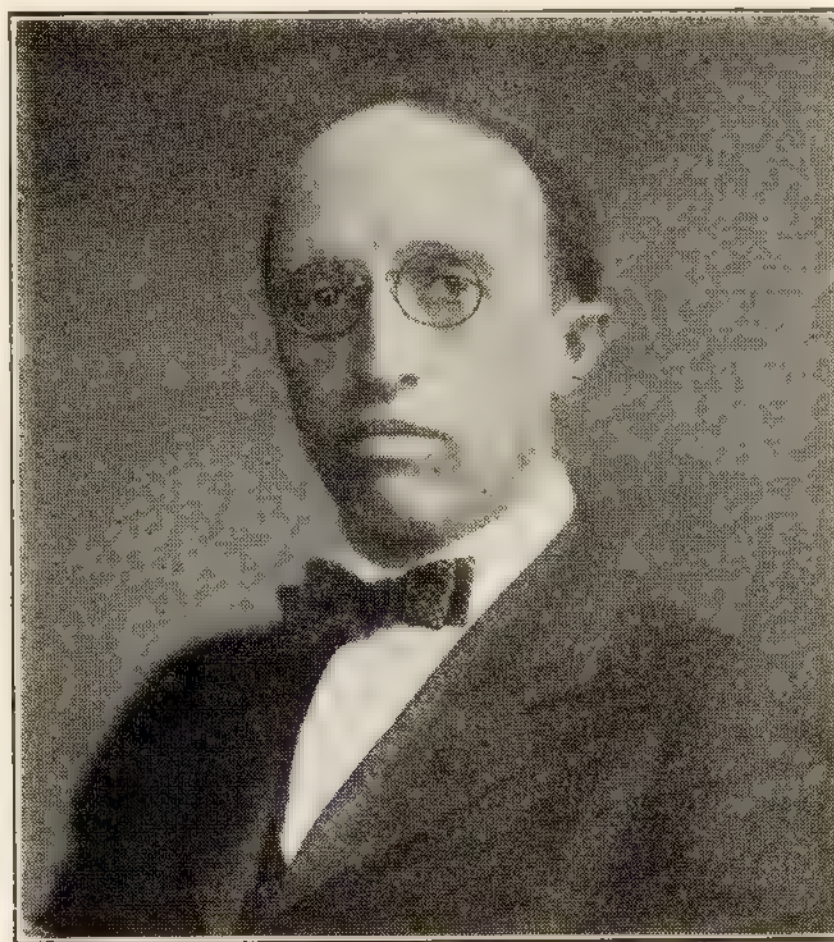
September, 1922, brought twenty-two students of the class back for a second lap. So far, this year has been most successful, scholastically, athletically, and socially. We defeated the Freshman football team 7-0. Frank Borman captained the team both years. On Visitor's Day in November, we gained another victory in field and track events, winning everything but the Tug-o'-war and the running broad jump, which were captured by the Freshmen. Basketball was our next undertaking, and in a game played against the faculty



P. G. Cobb F. W. Borman R. V. Morgenroth
Vice-Pres. Pres. Treas.

we came out on the sunny side of the score. A week later we triumphed over the Freshmen.

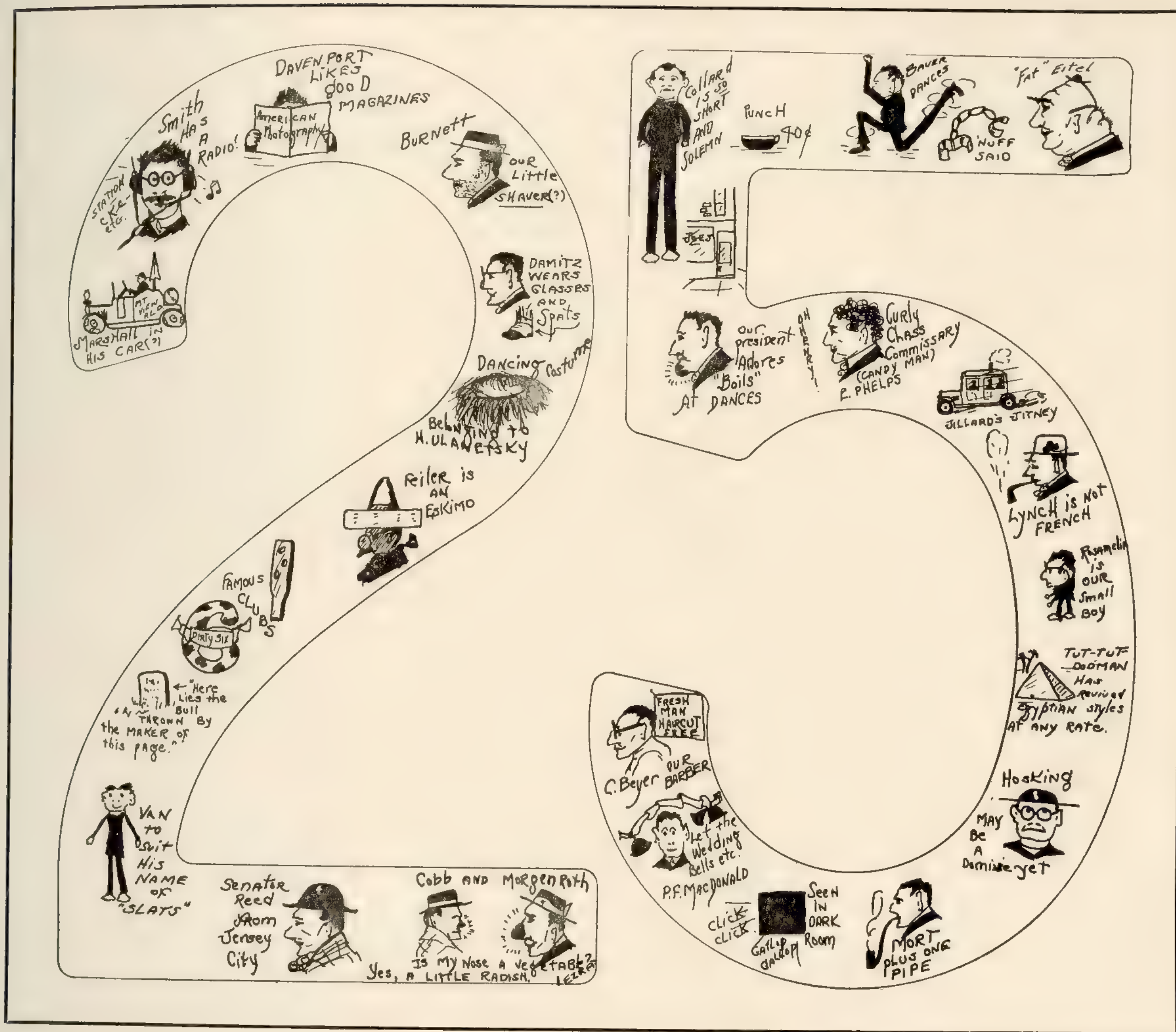
Several dances have been held this year, two at the college, and one at the Washington Restaurant. The latter, which was open to college men only, was the most successful ever held by the college men. Much credit is due to the committee consisting of L. D. Smith, Wm. Vander Schaaf, Harry Hoskings and Frank W. Borman, for their energetic efforts to make it the success it certainly was.



J. C. Peet, Class Advisor

1925 has among its numbers the only young lady of the school, who is also numbered with the four taking chemical engineering. Eight men are taking the electrical engineering course, and nine are taking mechanical engineering.

We of 1925, planning great things for the future, have taken as our motto:
"Ever onward and upward."



THE PAINLESS OPERATION

ONE of the members of our Board of Trustees, who, as all of the others, was asked for his picture for publication in this year book, informed the editor that he had never had his picture taken in his life. After a series of diversified efforts to get him to take his picture, he finally capitulated and promised to "submit," only after a pleasant voiced young lady from the studio promised that the operation would be "absolutely painless" and pleasant.

Upon entering the office of the studio, his hat still on his head, the following conversation took place:

"Are you the young lady who said this would be a painless operation?"

"Yes, it'll only take a minute. Just go into the next room. You will find a comb and brush there with which to fix your hair."

"You'll apologize for that remark when I take this hat off," he quickly retorted, and then exposed a most perfectly smooth head. We are of the opinion that it was at this point that the painful part of the operation ceased.



Last row, left to right—F. B. Cox, A. F. Riemer, F. R. Riemer, L. Hainault, J. Brendlen.
 Third row—G. Van Blarcom, H. Goellner, N. Pico, F. G. Rosenfelder, J. M. Coe, H. V. Precheur, C. J. Lee.
 Second row—M. J. Monahan, F. Orosz, M. Runyon, A. Kopf, J. C. Doig, F. H. Gederberg, W. K. Perry, V. H. Ripley.
 Front row—H. O. Probst, L. V. Edwards, F. Widdop, E. E. Hendry (Treas.), J. F. Ditsch (Pres.), E. E. Fischer (Sec.),
 Prof. Entwisle (Class Advisor), R. B. Newton.

THE FRESHMAN CLASS

THE opening day of the fall semester, 1922, found us a group of embryo engineers, loaded down with books and other equipment, trying to accustom ourselves to the "run of things" in college. On a week's notice we were to organize a football team to play the Sophomores. The result of this game was to decide whether or not the Freshmen were to abide by the rules laid down by the all-wise upperclassmen. We played the game, were defeated, and turned to organizing the class for the common defense. Having become sufficiently acquainted, we elected the following officers: President, J. Ditsch; Vice-President, F. Widdop; Treasurer, E. Hendry; Secretary, D. Fisher, and adopted a policy of watchful waiting.

It was not long before hair-cutting episodes and barrel stave parties brought us into intimate contact with the Sophomores. All but one of us escaped from these various unpleasanties as best we might—and kept smiling. He, a veritable Hercules, a throw-back to primordial man, resented certain sartorial improvements worked upon his person by Sophomores, and wreaked his vengeance to the full. After this, our first and only bloodshed, a certain tension of the atmosphere made life doubly worth living. So things went on, until on Parents' Day there came an outlet of rivalry in athletic competition. As the Christmas Recess drew

near we worked with new incentive, looking forward to the Mid-Year Examinations and freedom from Freshman Rules. So much for our experiences with our hereditary enemies. We entered the second semester with some assurance born of having weathered the examinations. The natural outcome of this was a stronger class organization and plans for a Freshman Dance in April.

It may not be amiss to mention here the men who have instructed us. We realize that their task has not been an easy one, possessed as we were of a goodly share of those petty vanities which mark the amateur in all pursuits. Each of our professors is a distinct type, a man whose personal attributes are well worth considering. They are at once a group whose experience it has been to adjudge and to correct

human frailties. Coming from school where formality and prescribed method rule, it has been something of a novelty to be thrown "on your own" in many ways. As we have become accustomed to the change, we have found the freedom of discussion helpful and the personal responsibility distinctly broadening. This transition has been greatly facilitated by the fine "man to man" attitude of our professors.



E. E. Fischer
Sec.

J. F. Ditsch
Pres.

E. E. Hendry
Treas.

F. Widdop
Vice-Pres.



F. N. Entwisle, Class Advisor

Through his addresses at convocations we have come to know Mr. Cullimore. No one can come in contact with our Director without being impressed with his great enthusiasm for our college and his high ideals for its present and future. No freshman can avoid having inculcated in him some of our Dean's pride in "Tech" and, as a consequence, registering a vow to do his best to "carry on" the fine traditions we inherit.

We have learned from this year's experience that a student who learns to discriminate and to pick out the substance

of a course for future use betters himself far more than one who looks only to grade standing. It has been demonstrated to us that we should prepare ourselves for life by clinching in our minds at every opportunity what Ruskin calls, "a sapling truth, with earth at its root and blossom on its branches; or a trenchant truth, that can cut its way through bars and sods. * * *."



SOCIETIES



ASME

Mechanical Engineering Society

D. K. CRAIG, <i>Pres.</i>	J. SPIELVOGEL
F. R. FOGEL, <i>V.-Pres.</i>	R. J. MORGENROTH
E. L. BURNETT, <i>Sec.</i>	R. WIDDOP
F. A. JILLARD, <i>Treas.</i>	A. W. STEVENS
C. M. BEYER	W. K. PERRY
W. D. VANDER SCHAAF	A. KOPF
R. B. NEWTON	V. H. RIPLEY
H. K. GOELLNER	A. G. DAVENPORT
K. S. MARSHALL	



AIEE

Student Branch A. I. E. E.

E. WALLER
L. D. SMITH
W. CRUTCHLOW
E. ADAMS
G. BOORUJY
C. A. SHULTZ
J. NILE



AAE

Student Branch A. A. E.

L. D. SMITH
R. R. FOGEL
W. PERRINE
C. P. MANNHEIM
L. MOSCH

N. J. Chemical Society

J. P. WLUDYKA	W. PERRINE
I. BERGMAN	L. MOSCH
E. E. HENDRY	M. KOSCHES
C. P. MANNHEIM	L. J. PATTERSON



Glee Club and Orchestra

PROF. W. NETSCHERT, <i>Director</i>	R. WIDDOP	H. HOSKING
C. M. BEYER, <i>Manager</i>	W. K. PERRY	D. S. COLLARD
C. P. MANNHEIM, <i>Asst. Dir.</i>	P. G. COBB	C. BAUER
W. D. VANDER SCHAAF	L. HAINAULT	F. GEDERBERG
A. W. STEVENS	K. S. MARSHALL	J. M. COE
R. B. NEWTON	F. DAMITZ	



THE ATHLETIC ASSOCIATION

BEFORE giving any facts regarding the organization itself, it may be well to consider some of the motives underlying it, some of the principles which are guiding it and which we hope will continue to guide it. For while adherence to solid principle may not bring immediate, it will certainly bring ultimate success.

The school and this organization are in their infancy and the policies established now will be guiding precedents a few years from now. We hope they will be worthy precedents.

We believe in athletics, we may even aspire to some future athletic note, but we cannot entertain the idea that in an engineering school engineering subjects can be subordinated to athletics or to anything else, for that matter. If the organization was not conceived with this primary principle in view, it is certain that subsequent happenings have shown that it was instilled later.

We subscribe to the idea that if an organization of this kind can promote a spirit of clean sportsmanship, and demonstrate effectively the value of team work and co-operation, it has done its greatest good and served its ultimate purpose.

We propose to accept defeat and victory alike gracefully. We believe that winning gracefully is an art on a par with losing gracefully.

Our co-operative plan restricts if it does not prohibit, the use of material from the two upper classes. The school is not situated or equipped as yet for intensive athletic activities but athletics are coming through this formative stage in a manner that promises well for the future.

It is not our object to demand that a team representing us shall always return victorious, but we do expect that a reasonable number of games will come to us, and we do not want to go out of our class to insure that.

It would not be in accordance with the general policy and spirit of our school to do things half way, and we do not propose to put a half-trained or otherwise incompletely equipped team into competition.

The trend of events has been in a direc-

tion which indicates that we have had the foregoing facts in view, and we have, in general, been willing to subvert the natural desire for personal athletic honors to the sounder principle of building for future good. It speaks well of a body of men of whom this can be truly said, and it would be well for incoming classes to remember that we would prefer to postpone the placing of our teams in the field many years rather than place poor teams in the field.

The chief activities are at present in the line of intergroup games, with an occasional outside game when this intergroup competition has developed the men to a point that permits it. A system of point scoring is in use, whereby a member of a group team or the winner in a track meet may obtain class numerals or college emblems. This provides an incentive and sharpens the competition.



Coach R. E. Guillow

Robert E. Parks, now gone from our midst, was the first President of the A. A., and during his administration a constitution, framed after those in general use in the larger schools was adopted. It was as effective as most constitutions are, and it had one redeeming feature. It carried ample provisions for amendment. So ample indeed were they that during the second term of Widdop, who succeeded Parks, they were used to completely revise the constitution.

The older constitution had the fault that it was molded for institutions where all the classes could be drawn up for athletic material. It could not be expected to cover the special case here, where the two lower classes supply most of the material.

To meet this peculiar condition, a constitution fitted to the need was framed. It is at present in effect and provides for the election of a President and Vice-President from the upper classes, thus insuring men of some maturity at the head of the organization. The active head of the A. A. is the Chairman of the Student Executive Council, a Sophomore. This Council has active charge of all business of the A. A. The rest of the officers, including those of a lower class organization inside the larger one, are from the lower classes. Two members of the faculty compose an advisory board.



THE VARSITY BASKETBALL TEAM

Front row—C. Bauer, F. Borman, H. Ulanetsky.
Rear row—E. Phelps (Mgr.), F. Damitz, D. Rosamilia, Prof. Entwisle (Coach).



Freshmen Winning Rope Pull
Parents' Day, 1922

The change from the old constitution to the new, involving as it did, the recalling of the old officers, was responsible for some moves that savored of politics. It is to be hoped that we will all be big enough to do all in our power to support and foster an organization of which we can be proud, even if it does call for submerging personal honors to the general welfare.



Officers of the Athletic Association
Season of 1922-1923

President—Milton Holmes, '23.
Vice-President—Ray F. Fogel, '24.
Secretary—V. H. Ripley, '26.
Treasurer—C. M. Beyer, '25.

Advisory Council

Professor J. C. Peet, Chairman
Instructor, F. N. Entwisle
Coach, R. E. Guillow
Milton Holmes, '23
Ray F. Fogel, '24

Student Executive Council

Harry Hosking, '25, Chairman
V. H. Ripley, '26, Secretary
C. M. Beyer, '25, Treasurer
F. Damitz, '25
W. D. VanderSchaaf, '25
H. O. Probst, '26
J. Brendlen, '26
C. Mannheim '24.

GLEE CLUB AND ORCHESTRA



Top row—Marshall, Damitz, Newton, Eitel.
Middle row—Collard, VanderSchaaf, Hainault, Hosking.
Bottom row—Netschert, Cobb, Beyer, Perry, Ulanetsky.

IT was November, 1922, that our desire for a College Glee Club met its fulfillment. As is customary on the inception of a new institution, a goodly number of candidates appeared at the preliminary meetings only to lose enthusiasm on finding that there was work involved. Thus it was that the available material was diminished through lack of true interest. Those men who have stayed have made the club a live organization.

The club has been fortunate in having as director and coach, Professor Netschert, a veteran of the Stevens Institute Glee Club. Our success has been the outcome of his experience and untiring efforts. The first appearance of the club was on Parent's Day, as a double quartet. The subsequent entertainment by the club has been at convocations of the school and has been favorably received.

So at the close of this, our first season, the prospects of making the Glee Club an important, progressive factor of college life are of the brightest. In the fall the incoming class it is hoped, will furnish new men who, with our present members, should make the next season a successful one. An outgrowth of our vocal efforts has been the orchestra. While still in its experimental stage, its future is of prime interest to the student body.

THE FRATECH

The first official publication of the school was the *School Doings*, published in May, 1900. Only this one number was issued. The magazine contained only articles upon technical education and technical schools. For twelve years after, the school was not represented by any paper. Then, in 1912, under the guidance of Archibald Kidd, an alumnus, an editorial staff was chosen and a pamphlet called *The Fratech* was published, quarterly. It began in a very modest way and passed through several different sizes, until the standard was adopted, and has become a publication of thirty pages of reading matter. The journal was devoted to the interests of the past and present students of the school, and still maintains that purpose.

The Fratech was published entirely by the students of the Newark Technical night school, until, in 1919, the first class entered the College of Engineering of Newark Tech. A college staff was immediately chosen to edit their news for *The Fratech*. They soon started to send in articles of the college type, and the students of the college now look upon *The Fratech* as their publication as well as the night school publication, and they are heartily supporting every issue.

THE COLLEGE STAFF

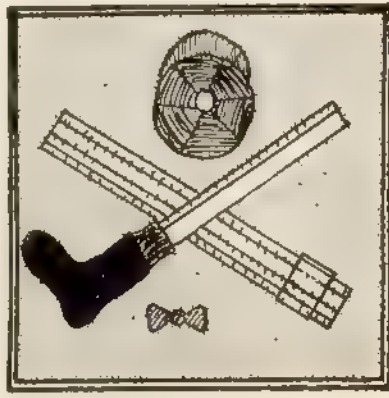
Associate Editors

Ira Bergman, '24
D. Collard, '25
M. Runyon, '26

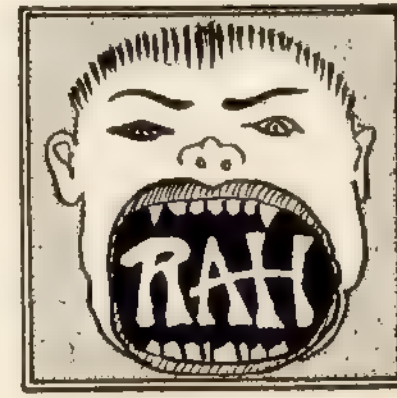
Assistant Editors

F. Foster Reed, '25
R. Fogel, '24
E. E. Hendry, '26

F. Eitel, '25



CHEERS AND FRESHMAN RULES



Stew Yell

Chem Elec Mech Rah
Chem Elec Mech Rah
Chem Elec Mech Rah
Enginee—ring
Enginee—ring
Enginee—ring

Locomotive Yell

E—n—g—i—n—e—e—r—i—n—g
E-n-g-i-n-e-e-r-i-n-g
(Engineering, spelled out)
Engineering, Engineering, Engineering

Short Yell

Yea(Name)
Yea(Name)
Yea(Name)

Whistle Yell

(Long Whistle)—Boom—Ah
College of Engineering
(Drawn Out)

College Yell

Ra.....h
Ra.....h
Rah (Snappy)
College of Engineering
College of Engineering
College of Engineering

FRESHMAN RULES

It is the custom for the Freshman Class in the College of Engineering of the Newark Technical School to obey and respect certain rules, not for the purpose of lowering Freshman dignity, but as a mark of distinction between Freshmen and upper classmen.

Therefore, the Freshmen of the Class of 1927, of the College of Engineering, are expected to live up to the following:

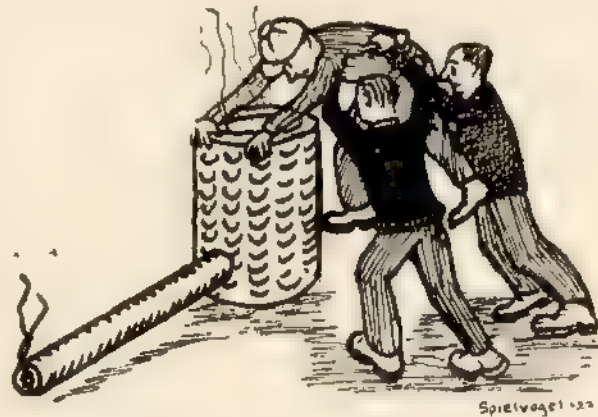
RULES

- I Hats—All Freshmen must wear the regulation Freshman cap. Caps must be worn between classes, noon hours, and at all college games.
- II Ties—All neckwear must be strictly green.
NOTE:—Both caps and ties are to be obtained from the Sophomore-Freshman Rules Committee.
- III Socks—All Freshmen must wear black socks.
- IV Freshmen cannot use the main front entrance of the academic building.
- V Football—Freshmen are expected to pick a team to play the Sophs the first Friday of October.
- VI Freshmen must furnish matches to upper classmen at all times, until the Sophomore-Freshman football game.
- VII These rules will be strictly enforced until the Christmas Recess.

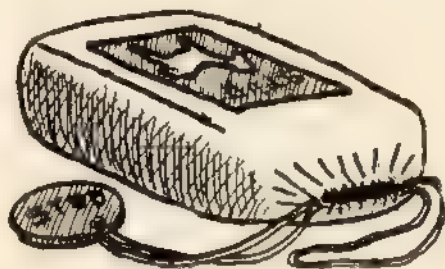
FRESHMAN RULES COMMITTEE OF THE CLASS OF 1926.

SMOKERS

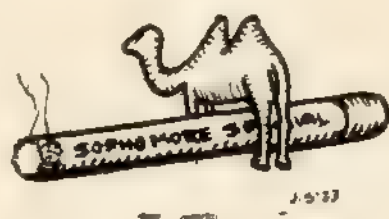
THERE are very few events to which we look forward, or upon which we look back, with more pleasure than our annual smokers, given by the Juniors. Coming as they do right after the Freshman-Sophomore struggle for supremacy on the football field, early in the first semester, it gives the Freshmen, upperclassmen, and faculty a chance to get acquainted early in the year.



Without a doubt the results accomplished by the smokers are very material, besides the good time which all have, old cider and fresh doughnuts consumed, and the acquaintances made. It gives the upperclassmen and faculty the opportunity of imbuing the new class with the spirit of the school, and to start them on the right path. Two smokers have been held so far, and from the possibilities already shown, this should be the leading college event of the year, not only to the students and faculty, but to the alumni as well.



It has been customary so far for the freshmen to restrict their smoking activities at the smoker to the use of corn cobs and Stud tobacco if they lose the game, otherwise to enjoy the same smoking privileges as the Sophomores, who may smoke cigarettes. Juniors may use their class pipes and abuse Lady Nicotine in any of the other aforementioned ways. The respected faculty, worthy seniors, and honorable alumni may smoke anything they can pick up.



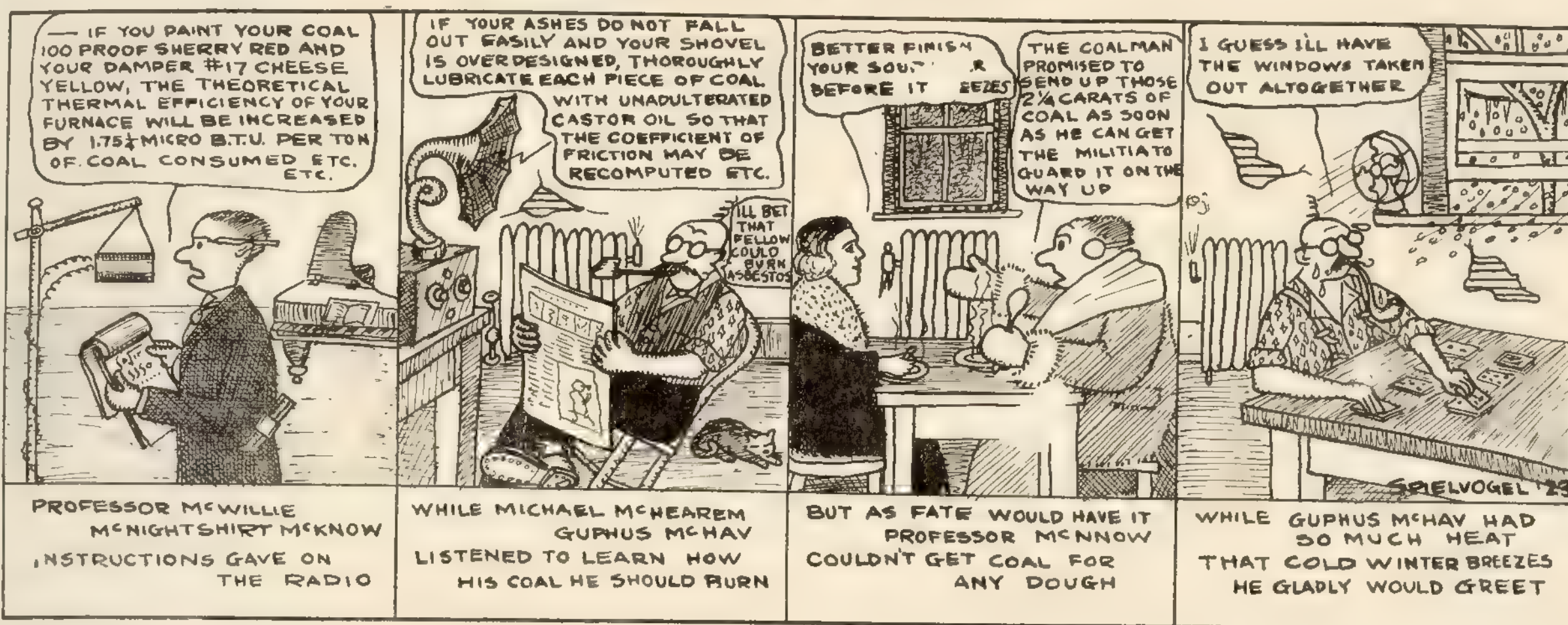
Here's to a big success next year.

J. Spielvogel
Chairman, 1921

W. A. Stevens
Chairman, 1922

C. M. Beyer
Chairman, 1923

McKNOW & McHAV



GETTING ADS — A LESSON IN PERSEVERANCE



KEEP MOVING

IN planning the various sections of this year book no special editorial section was contemplated. However, one of the stories which the Director related to the Senior Class recently so impressed them that we feel that it should be repeated, and its vital message disseminated to every one.

The story tells of a tramp who was making ready for the night at a railroad station where a number of cans of milk had been unloaded, when he was disturbed by a persistent noise resembling a muffled chirping of frogs. His curiosity being aroused, he searched in the darkness for the source of the disturbance. After putting his ear to a few of the milk cans, he finally located two from which the noise seemed to emanate.

"Help! I'm drowning, help!" was the wail of the imprisoned creature in one of the cans.

"Keep moving, keep moving," chirped the frog in an adjoining can.

"Oh! I can't stay up any longer, I can't hold on any more," the first frog frantically shrieked.

"Keep moving, keep moving," was the answer again.

The tramp being very tired, made himself as comfortable as he could for the

night, being subjected to the constant repetition of the lamentations until he fell asleep.

Upon awakening the next morning he found everything quiet, and wondering what had happened to the frogs, he decided to investigate.

When he opened the can in which the first frog had been imprisoned, he found its lifeless body floating, belly up. On removing the cover of the other can, to his surprise, he beheld the second frog comfortably resting on top of a lump of butter which he had churned up.

No great deal of thought is required in order to grasp the moral of the story just recited. If we ever attempt to accomplish anything worth while, at some time or another, we will be in a position where everything seems hopelessly against us, where, like the frog in the story, we feel we are lost. Don't forget, "*Keep Moving. Keep Moving.*" You don't know what it will get you to keep moving, neither did the other frog. In his case a natural law, unknown to him, was instrumental in his salvation. In your case it may be something else. To resign to fate, to sit down and think up a lot of reasons why the thing can't be done, is fatal. So *Keep Moving.*



THE 1923 **KEM-LEC-MEK** STAFF

J. SPEILVOGEL, *Editor-in-Chief*
 W. CRUTCHLOW, *Associate Editor*
 J. P. WLUDYKA, *Business Manager*
 A. W. STEVENS, *Asst. Business Mgr.*
 M. HOLMES, *Circulation Manager*

IRA BERGMAN
 C. M. BEYER
 F. BORMAN
 E. L. BURNETT
 D. COLLARD

J. F. DITSCH
 E. C. FISCHER
 F. R. FOGEL
 H. E. HOSKING
 E. E. HENDRY
 F. WIDDOP

P. J. MacDONALD
 L. MOSCH
 V. H. RIPLEY
 W. D. VANDER SCHAAF
 R. WIDDOP

ACKNOWLEDGMENTS



OFFICE FORCE

Martha W. Stark, Lillian M. Scott, John M. Pierce, Edna Schneider, Margaret A. Yatsko.

WE take this opportunity to express our appreciation and gratitude to all those who have been instrumental in bringing out the best we had in this premier issue of the *Kem-Lec-Mek*. We feel especially indebted to those outside the school who volunteered to pound the typewriter keys for us and gave up so much of their leisure time ungrudgingly and without even the remotest desire for any reward. In this connection do we mention Miss Helen F. Youmans, Miss Jeannette Lewandowsky, Miss Ethel Jillard, and Miss Regina Spielvogel. We feelingly mention the name of Professor H. Graham DuBois for his personal interest in the *Kem-Lec-Mek*, his timely suggestions, and for his able assistance in correcting the matter in the year book. Our office force, notwithstanding the large number of times we needed their assistance, has given us unfailing co-operation. To our own Margaret, especially, nothing we could say could possibly begin to express our appreciation of her more-than-willing spirit. The photographic work in this volume speaks for itself. To Koenig's Studio we acknowledge with thanks the many courtesies which were extended to us, and the prompt service which was rendered. Had it not been for the expert advice of Mr. J. D. McKechnie and Mr. A. DeVillero, of the Art Photo Engraving Company, we should have been seriously handicapped with our lack of knowledge in such matters. To Mr. William H. Crogan, of Baker Printing Company, we are indebted for his personal interest, and his efforts to get this year book out under "Forced Draft," so as to have it ready by graduation.

INDEX OF COLLEGE STUDENTS

Year and Course

ADAMS, E. F., '23—E.E.
 BAUER, C., '25—E.E.
 BERGMAN, I., '24—Ch.E.
 BEYER, C. M., '25—M.E.
 BJORKLUND, G. H., '23—M.E.
 BOORUJY, G., '24—E.E.
 BORMAN, F., '25—E.E.
 BRENDLEN, J., '26—Ch.E.?
 BURNETT, E. L., '25—M.E.
 COBB, P. G., '25—E.E.
 COE, J. M., '26—Ch.E.?
 COLLARD, D. S., '25—Ch.E.
 COX, E. P., '26—E.E.?
 CRAIG, D. K., '23—M.E.
 CRUTCHLOW, W., '23—E.E.
 DAMITZ, F., '25—Ch.E.
 DAVENPORT, A. G., '25—M.E.
 DAVIS, C. S., '24—Ch.E.
 DITSCH, J. F., '26—E.E.?
 DODMAN, S. P. (Miss), '25—Ch.E.
 DOIG, J. C., '26—M.E.?
 EDWARDS, L. V., '26—E.E.?
 EITEL, F., '25—M.E.
 FEILER, A., '26—M.E.?
 FISCHER, E. C., '26—E.E.?
 FOGEL, R. F., '24—M.E.
 FRASER, F. C., '23—Ch.E.
 GEDERBERG, F., '26—?
 GOELLNER, H. K., '26—M.E.?
 HAINAULT, L., '26—M.E.?
 HENDRY, E. E., '26—Ch.E.?
 HOLMES, M., '23—Ch.E.
 HOSKING, H., '25—E.E.
 HUNEKE, F., '26—Ch.E.?
 JACOBUS, F. L., '23—M.E.
 JILLARD, F., '25—M.E.

WLUDYKA, J. P., '23—Ch.E.

Year and Course

KOPF, A. S., '26—M.E.?
 KOSCHES, M., '24—Ch.E.
 LEE, C. J., '26—E.E.?
 MACDONALD, P. J., '25—E.E.
 MANNHEIM, C. P., '24—Ch.E.
 MARSHALL, K. S., '25—M.E.
 MONAHAN, M., '26—M.E.?
 MORGENROTH, R. J., '25—M.E.
 MORT, S. S., '25—Ch.E.
 MOSCH, L., '24—M.E.
 NEWTON, R. B., '26—M.E.?
 NILE, J., '24—E.E.
 OROSZ, F., '26—Ch.E.?
 PATTERSON, L. J., '24—Ch.E.
 PERRINE, W., '24—Ch.E.
 PERRY, W. K., '26—M.E.?
 PRECHEUR, H. V., '26—E.E.?
 PROBST, H. O., '26—E.E.?
 REIGENSTREICH, S., '24—E.E.
 RIEMER, A., '26—E.E.?
 RIEMER, F. W., '26—E.E.?
 RIPLEY, V. H., '26—M.E.?
 ROSAMILIA, D., '25—E.E.
 ROSENFELDER, F. G., '26—E.E.?
 RUNYON, M. E., '26—M.E.?
 SHULZ, C. A., '24—E.E.
 SMITH, L. D., '25—M.E.
 SPIELVOGEL, J., '23—M.E.
 STEVENS, A. W., '24—M.E.
 VAN BLARCOM, G., '26—M.E.?
 VANDERSCHAAF, W. D., '25—M.E.
 VANDERLIP, A. L., '24—E.E.
 VITO, A., '24—E.E.
 WALLER, E., '23—E.E.
 WIDDOP, F., '26—E.E.?
 WIDDOP, R., '24—M.E.

OUR ADVERTISERS

THE firms represented in our advertising section deserve more than ordinary consideration in view of the conditions under which they contracted for space. We had nothing in the way of previous issues of the *Kem-Lec-Mek* to show them so that they might have some idea as to the quality of the medium in which they were making their investment. Confidence in Newark Tech and its men was their sole guarantee. This, we believe, reflects in a very favorable way on their integrity, and on the reputation of our school.

A perusal of this section will not only show the real friends of Newark Tech, friends who in a very natural way made this, our first effort, possible, but it will be found to constitute a directory of the leading concerns in their line, in this section of the country.

INDEX TO ADVERTISERS

	PAGE		PAGE
American Linseed Co.....	61	Koenig's Studio	60
Armitage, J. Hague.....	58	Lehn & Fink, Inc.....	55
Armitage, J. L.....	61	Ludlow & Squier.....	53
Art Photo Engraving Co.....	61	Midland Linseed Products Co.....	56
Baker Printing Co.....	62	Newark Gear Cutting Mach. Co.....	60
Bertl, Norbert	53	Newark Preparatory School.....	59
Clements & Son.....	53	N. J. Towel & Supply Co.....	61
College of Engineering, N. T. S.....	52	Posner, J.	54
Cooper, Charles & Co.....	58	Richard, M. C., Studio.....	58
Court House B. & L. Association.....	59	Ruckelshaus Sons	58
Eimer & Amend.....	61	Ruehle, E. G. & Co.....	58
Eitel, Andrew	56	Splitdorf Elec. Co.....	56
Ellis, W. L.....	58	Standard Oil Co.....	54
Fidelity Union Trust Co.....	57	Taintor Co., The.....	54
Glass Specialty Co., Inc.....	60	United Color & Pigment Co.....	60
Haetten, J. E. & Co., Inc.....	61	Walsh's Sons & Co., Inc.....	56
Hockenjos, J. J., Co.....	56	Washington, The	60

COLLEGE OF ENGINEERING

of

The Newark Technical School

Courses in Chemical, Electrical
and Mechanical Engineering,
Leading to the Degree
of B.S.



EVENING TECHNICAL COURSES GENERAL TECHNICAL COURSE
ELECTRICAL, MECHANICAL AND CHEMICAL COURSES



For Information Apply to the Registrar

NEWARK TECHNICAL SCHOOL

367 HIGH STREET

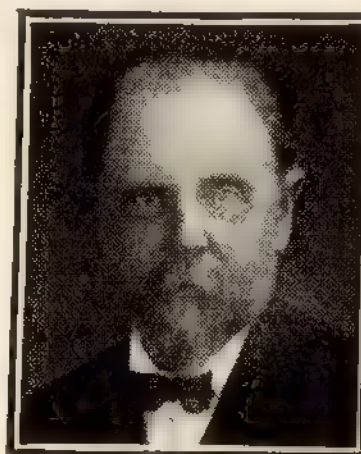
NEWARK, NEW JERSEY

TOOLS
FOR ALL TRADES
Catalogs for the Asking
LUDLOW & SQUIER

"Hardware That Stands Hard Wear"

97-99 Market Street
Newark, N. J.

SHAKESPEARE SAYS



"Good name in man or
woman dear
Is the immediate jewel of
their souls."

A DIAMOND or any
JEWEL bought at

BERTL'S

Reflects the name of high quality, refined
taste and reasonableness.

Serving three generations of satisfied
customers and ready for you

NORBERT BERTL

Diamond Expert

46 Springfield Ave. Newark, N. J.

CLEMENTS & SON

Sole Agents for Eastern Territory

ARCHER-DANIELS LINSEED COMPANY

Pure Linseed Oil

Raw—Boiled—Refined—Varnish

WHITEHALL BUILDING

NEW YORK CITY, N. Y.

PLANTS:

Edgewater, N. J.
Buffalo, N. Y.
Toledo, Ohio
Minneapolis, Minn.

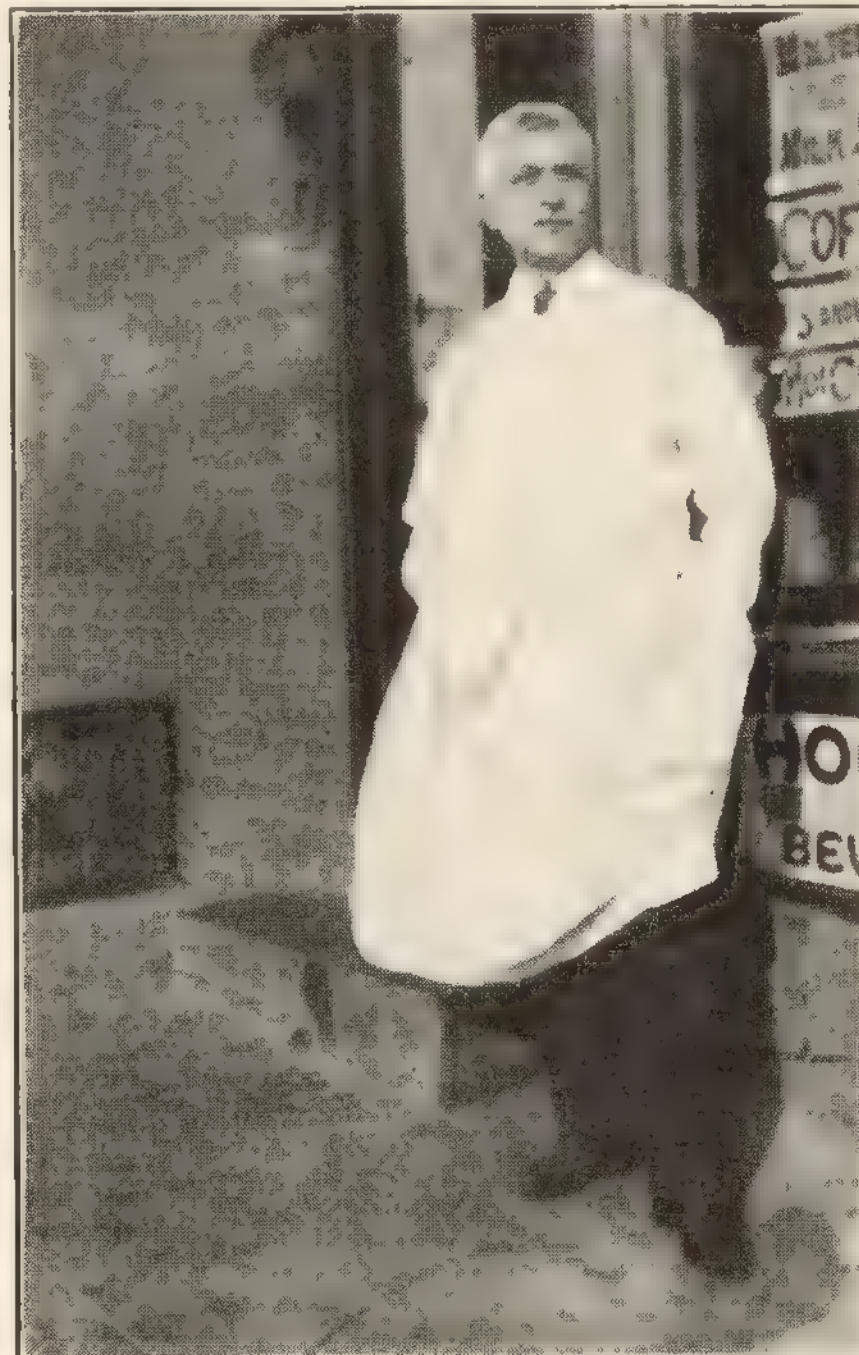
DELIVERED

Tank Cars
Carrlots
Truckloads
Cooperage
Drums
Cases

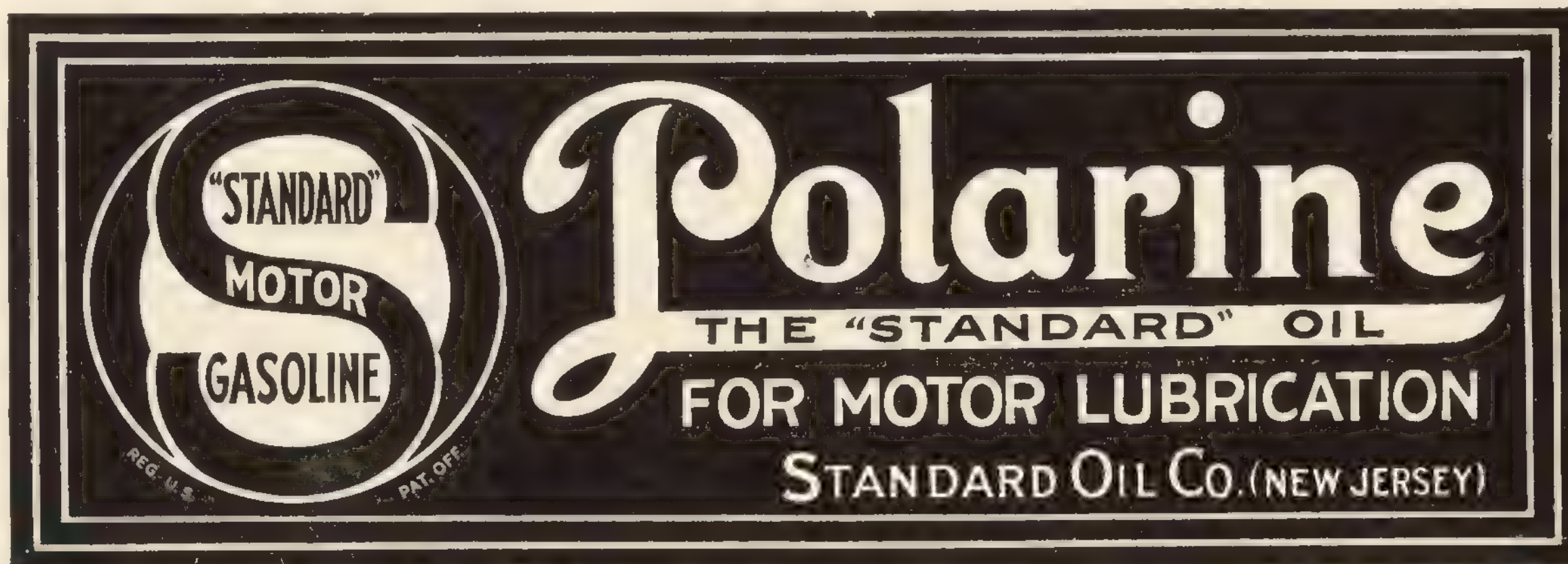
Sandwiches
Candy
Ice Cream

Cigars
Cigarettes
Tobacco

JOSEPH POSNER
342 HIGH STREET
NEWARK, N. J.



"LET 'EM EAT"



THE TAINTOR COMPANY

Manufacturers of

WHITING and PARIS WHITE

2 RECTOR STREET

NEW YORK CITY

PEBECO

TRADE MARK REG. U. S. PAT. OFFICE

TOOTH PASTE

BEAUTIFUL TEETH are healthy teeth.

Science long ago established the fact that tooth-decay was caused by acids in the mouth.

PEBECO Tooth Paste counteracts this condition. It also brings about a natural healthy condition in the mouth so that the teeth are thoroughly cleaned and kept healthy — and healthy teeth *are* beautiful.

Manufactured only by

LEHN & FINK, INC.

635 Greenwich Street

New York City

DEPENDABLE PRODUCTS

Magnetos
Spark Plugs
Piston Rings
Ignition Cable
Etc.

SPLITDORF ELEC. CO.
NEWARK, N. J.

Tel. Market 7406

KNOW ME BY MY WORK

Jobbing and
Repairing
Promptly
Attended To

ANDREW EITEL
Carpenter and Builder

SHOP:

90-94 Brill St. (rear) 86-88 Brill St.
NEWARK, N. J.



THE RICE PROCESS MILL WHITE

IN SHOPS AND WORKROOMS

The use of Barreled Sunlight—Rice's Gloss White—in small shops and workrooms offers the same splendid advantages that have benefited so many of the great modern factories. Better workmanship, less eyestrain, more cheerful surroundings, greater comfort for the workmen, and more order and neatness in the shop follow its application. Barreled Sunlight gives a permanent light reflecting finish that can be washed and will not need repainting for years. Because of the special process by which Barreled Sunlight is made it will remain white longer than any other similar product.

A SIZE FOR EVERY PURPOSE

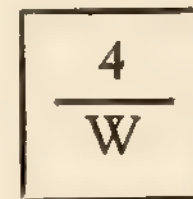
Gallons, half gallons, quarts, pints, half pints

DISTRIBUTED BY

J. J. HOCKENJOS CO.
829 BROAD ST. NEWARK, N. J.

WALSH'S SONS & CO., Inc.

Harrison, N. J.



Newark, N. J.

MIDLAND LINSEED PRODUCTS CO.

Old Process Linseed Crushers

120 BROADWAY

NEW YORK

New York Representative

G. H. TOMLINSON

WHATEVER YOUR FUTURE MAY BE

Your own bank account will be a great help to you.
Is there a better time to think of that than now?
While you think of it start to build up a checking
account or a savings account in this bank—the
largest in the state. It will be our pleasure to
serve you.

FIDELITY UNION TRUST COMPANY

BROAD and BANK STREETS

NEWARK, N. J.



Machine Shop

Tel. Waverly 1070

J. HAGUE AMITAGE & SONS
Incorporated

Manufacturers of

Enameled Oil Cloth, Enameled Paper and Coated Specialties

FACTORY:
Cor. Dawson and Thomas Streets

Newark, New Jersey

Cooper Quality Chemicals
Are Used in the
NEWARK TECHNICAL SCHOOL

Acids	Ether Sulphuric
C. P. and Tech.	Ethyl Chloride
Muriatic	Iodine
Nitric	Manganese Borate
Sulphuric	Nickel Nitrate
Ammonia	Nickel Chloride
Aqua	Silver Nitrate
Anhydrous	Silver Chloride
Bone Ash	Sodium Carbonate
Chrome Oxide	Sodium Sulphide
Collodion	Sodium Sulphite
Copper Carbonate	Sulphur Flour
Copper Chloride	

CHAS. COOPER & CO.

Manufacturing Chemists Since 1857

194 WORTH STREET NEW YORK
Works: Newark, N. J.

Tel. Market 1080-0989

THE "ELLIS" LINE

Typewriter Ribbons—All colors for all machines
Typewriter Carbon, Pen and Pencil

Typewriter Paper—all sizes—sample folder on request

Engraving, Filing Folders and Envelopes
Stenographers' Note Books
Manila Ruled Legal Pads

W. L. ELLIS
30-32 CLINTON ST. NEWARK, N. J.

Tel. Mulberry 1607

E. G. RUEHLE & CO.
DRAWING MATERIALS and
MATHEMATICAL INSTRUMENTS

Architects and Engineers Supplies
Blue Prints—Rain or Shine

30-32 CLINTON ST. NEWARK, N. J.
Main Office: 180 Fulton Street, New York

Tel. Market 9950

M. C. RICHARDS
SCHOOL OF DANCING

Social Classes — Classes — Private Instruction
Day or Evening Open All Summer

STUDIOS:

653 Broad Street, 4th Floor Eisele Bldg.

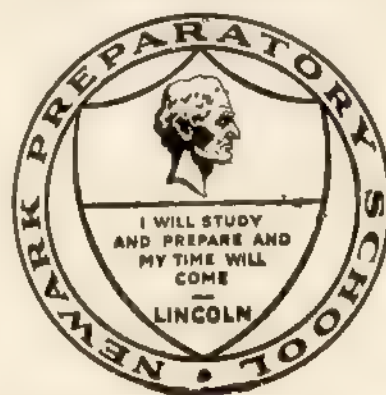
Established 1865

J. RUCKELSHAUS' SONS

Furniture and Rugs

228 MARKET ST. NEWARK, N. J.
(Near Mulberry Street)

Chartered by the State of New Jersey



NEWARK PREPARATORY SCHOOL

Complete High School Course in Two Years

Days or Evenings

Accountancy—Secretarial Training

150 graduates now studying at 40 colleges and universities, including Yale, Princeton, Columbia, N. Y. U., Rutgers, Tufts, Stevens, Union, Colgate, Cornell, Georgetown, Boston U., Michigan, Wisconsin, Seton Hall, Fordham, N. J. Law School, etc.

Former Graduates Leaders in All Professions

Successful systems improved through ten years of specializing in College Preparatory and Regents work exclusively; individual attention by a strong faculty of experienced men teachers.

Complete Science Laboratories

Only 75 new pupils admitted each term. A few vacancies now open. Seats assigned in order of registration. Register now.

HIGH SCHOOL IN TWO YEARS

Phones: Market 6120; Mulberry 0285

1030 BROAD STREET

Send for Booklet T

NEWARK, N. J.



ASSETS \$1,000,000

COURT HOUSE BUILDING AND LOAN ASSOCIATION OF NEWARK, N. J.

Incorporated June 5, 1893

Commenced business June 21, 1893

Meets Third Monday of Each Month at
77 Springfield Avenue

OFFICERS

John Coppersmith, 532½ Hunterdon Street
President

Charles Keil, 206 Hilton Ave., Hilton, N. J.
Vice-President

John T. Morlock, 185 Market Street
Secretary
(Phone Market 1964)

George W. Jagle, 829 Broad Street.
Treasurer

Joseph G. Young, 706-710 Natl. State Bank Bldg.
Counsel

DIRECTORS

Rudolph G. Muller	Eli Mandelbaum
Charles Stopper	Charles Krebs
John T. Hanlon	Oscar Baechlin
Gustave Modersohn	Henry Diffany
Achill Bippart	Emil Schell
Philip J. Zilliox	Christian Grau

SERIES ALWAYS OPEN

Telephone Market 3718

Open Sundays from 10 to 5 P. M.

Koenig's Studio
875 Broad St.
Cor. William.
NEWARK, N. J.

WE MAKE

Home Portraits,
Portraits in the Studio,
Commercial Work in all its
branches.

All portrait and group work in
this book made by
KOENIG'S STUDIO



NEWARK GEAR CUTTING MACHINE CO.

HENRY E. EBERHARDT, President

65-75 PROSPECT STREET

near Ferry Street

NEWARK, N. J.

GEAR SPECIALISTS

Manufacturers of Gear Cutting Machinery (Patented)

Phone Market 4880

New Jersey's Famous Restaurant

THE WASHINGTON

559 Broad Street and Washington Place
NEWARK, N. J.

Dancing Every Saturday from 9 till closing

Ball Rooms

Private Dining Rooms

Phone Market 0984

**NEW JERSEY LABORATORY SUPPLY
HOUSE**

of

GLASS SPECIALTY CO., Inc.

Apparatus for Laboratory and Industrial Use

235-239 Plane Street

(Between Academy and Warren Streets)

NEWARK, N. J.

DRY COLORS

LITHOPONE

UNITED COLOR & PIGMENT CO.

NEWARK, NEW JERSEY



LEATHER MAKERS!

USE

Special "A" Linseed Oil for the
Daub Coat

Alinco Varnish Oil for the
Finishing Coat

AMERICAN LINSEED CO.

Linseed and China Wood Oils

297 FOURTH AVE. NEW YORK

Headquarters for Chemical and Bacteriological
Laboratory Apparatus and Supplies

Prescription Drug Department the Largest
in New York

Visit us or write us your requirements

EIMER & AMEND

Established 1851

Third Avenue, 18th to 19th Streets

NEW YORK, N. Y.

Washington, D. C., Display Room
Evening Star Bldg.

PITTSBURGH, PA.

Branch Office: 8085 Jenkins Arcade

JOHN L. ARMITAGE & CO.

Manufacturers of

VARNISHES, ENAMELS AND INTERIOR FLAT FINISHES

245 THOMAS STREET

NEWARK, N. J.

NEW JERSEY
TOILET & TOWEL SUPPLY CO.

69-73 NEW STREET

NEWARK, N. J.

J. E. HAETTEN & CO., Inc.

Metal Working Machinery

Contractors' Equipment

Special Machinery

50 CHURCH STREET NEW YORK

BAKER PRINTING CO.

251 MARKET STREET

69-71 CLINTON STREET

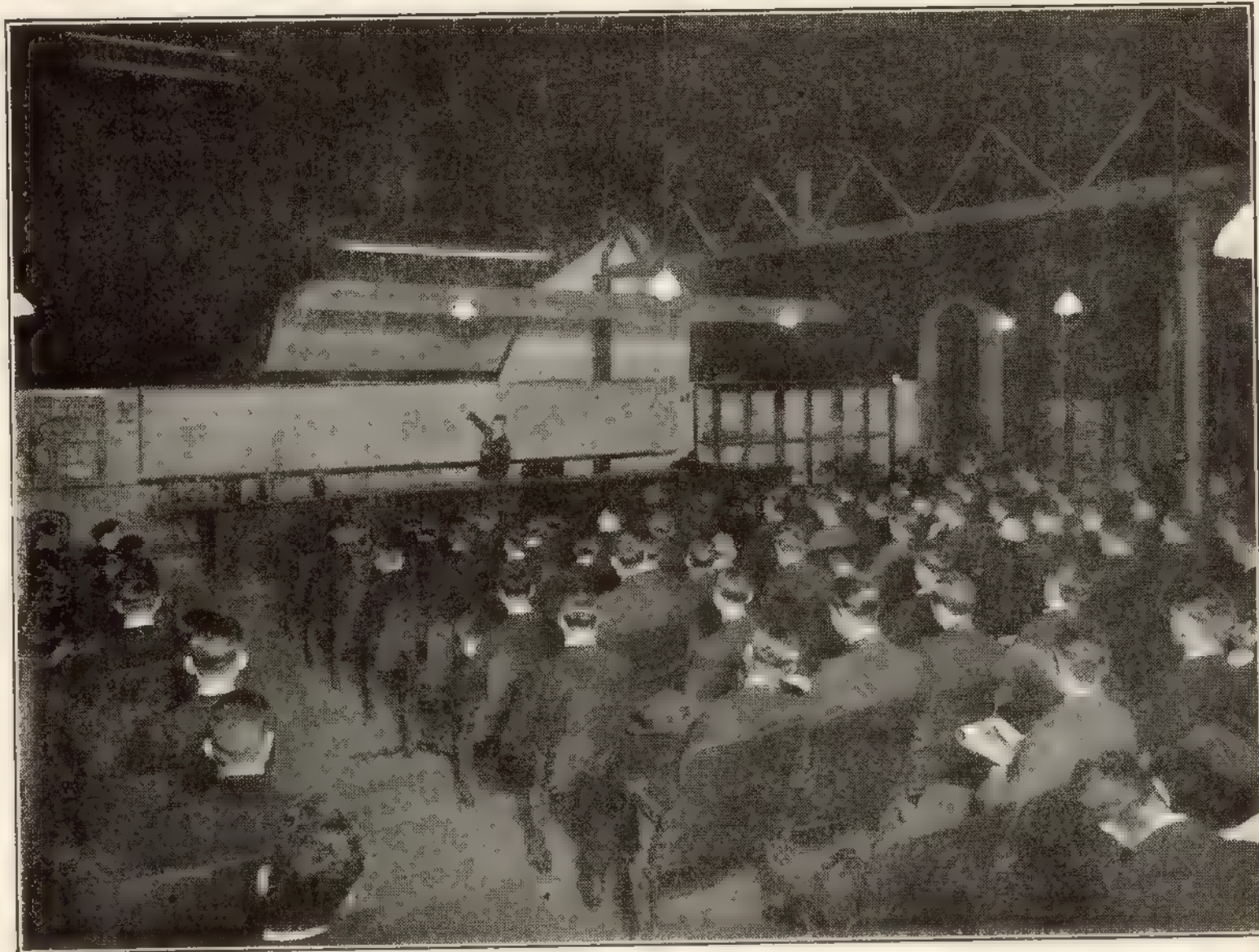
NEWARK, NEW JERSEY

PRINTING STATIONERY OFFICE FURNITURE

WE MAKE A SPECIALTY OF SCHOOL AND COLLEGE
PRINTING AND ENGRAVING



This Book is a Specimen of our Work



The Lecture Hall

Autographs

Elwyn Waller.

Milton Holmes

Raymond Fogel

William L. Perrine

Donald K. Craig.

Joseph A. Whitely

Joseph A. Whitely



N.J.Ref. 620.0071174932 K31

The 1923 Kem-Lec-Mek **1**

THE PUBLIC LIBRARY
NEWARK, N.J.

Fines are charged on overdue items to encourage prompt return so that they may be available to others.

Your library card may be used at the Main Library and any neighborhood branch library.

Do not remove date card from pocket

THE NEWARK PUBLIC LIBRARY



3 3173 01053 6544

N.J.Ref.
620
.0071174
932
K31